# Boise National Forest

# Mid-Level Vegetation Map Unit Descriptions


## February 2014

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# Introduction

Mid-level vegetation map units are designed to delineate one or more vegetation types. These types are either Region 4 dominance types (dt) or Boise dominance type phases (dtp). Phases are subdivisions of R4 dominance types defined to meet the Forest's information needs.

**Vegetation Classification:**

At the regional level, existing plant communities are assigned to ***dominance types*** based on the most abundant species of the ecologically dominant life form (e.g. the most abundant tree species in forests or woodlands). This approach was decided upon by a council with representatives from each Forest in the Region.

At the Forest level, the regional dominance types may be subdivided into **dominance type phases** based on associated species of the same life form as the dominant species. Forests are free to define these phases to best meet their own information needs, as long as they nest within the regional dominance types.

An initial list of dominance types was compiled for the Payette and Boise NFs using vegetation plot data from the Forest and vegetation classification literature relevant to the Forest. The list was reviewed and augmented by Forest resource specialists and local partner organizations. The Forest specialists then determined which dominance types to split into phases and how those should be defined. Rules for distinguishing phases were tested using the regional plot database and a Forest key to dominance types and phases was developed. Phases were only defined within forest dominance types, not in woodlands, shrublands or grasslands.

**Map Unit Design:**

Once the classification is developed, Forest and Regional specialists develop a ***map legend*** by determining which dominance types and phases should be mapped individually and defining groups of dominance types and phases that can be combined into map units. Overall map accuracy decreases as the number of map units increases, so the team seeks to balance map detail versus map quality. This process is informed by applying the Forest dominance type key to FIA plot data and estimating the acreage of each type on the Forest. The initial map legend is complete when each dominance type and phase has been assigned to a map unit and that information is added to the dominance type key.

**Map Unit Descriptions:**

Due to the natural variability of vegetation and limitations in image processing technology, a map unit always includes more dominance types than those it was intended to delineate. A map unit description describes the concept of a map unit—what it is intended to depict, and the variation within a map unit in terms of the dominance types and phases occurring in it. This information allows a map user to assess how well the map did at delineating the intended vegetation type(s) and evaluate how that may affect their use of the map for their specific needs.

The composition of each map unit is described based on proportions of systematic inventory plots (FIA and B-grid) and/or based on stratified random sampling performed for accuracy assessment. The source depends on the amount of data available for each map unit.

Each map unit description for the Boise includes the following sections:

**Photographs** depicting plant communities typical of the map unit.

**Map Unit Concept** – a description of the vegetation types intended to be delineated.

**Vegetation Map Group** – the broader category of vegetation to which the map unit belongs. These groups have been defined regionally and are used in the image analysis process that creates the maps.

**Sample Size** – The number of plots from all sources used to delineate, assess, and describe the map unit. Sources on the Payette NF include reference and accuracy assessment plots collected for the mapping project, observation polygons identified during reference data collection or by photo interpretation, FIA and B-grid plot data –grid-based, spatially balanced samples of the entire forest, and legacy plot data collected in recent years with GPS coordinates. Legacy data were used as part of the stratified accuracy assessment sample.

**Map Unit Composition** – A description of the proportions of vegetation types occurring in the map unit. This is based on systematic inventory data (FIA and B-grid) wherever possible. When the amount of inventory data in a map unit is limited, it is calculated based on stratified accuracy assessment plot data. Where each kind of data is limited, proportions are calculated based on all available plot data. Proportions (i.e. percentages) of vegetation types within the map unit are listed in a table indicating the data source(s) and sample size(s) used.

**Map Unit Extent** – A table listing the acreage of the map unit by ranger district, and the percentage of the district assigned to the map unit.

**Documented Dominance Types** – A table listing all of the dominance types and phases known to occur in a map unit based on all the available plot and observation data.

**Environment** – A description of the elevation and precipitation range of the map unit based on intersecting all the geo-referenced plots and observations with a digital elevation model and the DayMet mean annual precipitation map.

**Distribution Map** – A general map showing where on the Forest the map unit occurs.

**Successional Relationships** – A description of successional pathways within the map unit that relates the dominance types in the map unit to potential natural vegetation at the series level. This is used to assess how ecological similar the types in the map unit are to the targeted dominance type(s).

Douglas-fir dominance type phase (PSME-PSME dtp).

Douglas-fir dominance type phase (PSME-PSME dtp).

**Map Unit Concept:** The Douglas-fir map unit consists mostly of stands belonging to the Douglas-fir dominance type phase (PSME-PSME dtp). It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 63,345 | 15.8% |
| Emmett RD | 45,703 | 12.9% |
| Idaho City RD | 89,675 | 15.8% |
| Lowman RD | 116,124 | 24.8% |
| Mountain Home RD | 89,496 | 12.2% |
| Boise NF | 404,343 | 16.0% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 135 Plots | FIA: 37 | B-Grid: 53 | Ref: 11 | AA: 29 | Legacy: 5 |
| 677 Observations | | | | | |

**Map Unit Composition:** Based on the available FIA and B-Grid data, 52% of the map unit, or 210,300 acres, is the Douglas-fir dtp. The DF map unit includes about 48% of the PSME-PSME dtp on the Forest. The ABLA-PSME dtp and the ABLA-ABLA dtp each make up 7% of the map unit and the PICO dt makes up 6%. Other forested dominance types and phases make up 17% of the map unit. Early seral shrubland, herbaceous, and sparse vegetation make up 11% of the map unit.

There are 952 geo-referenced observations and plots in the Douglas-fir map unit. These points document the occurrence of 37 dominance types and phases in this map unit. All 37 are listed below with the number of observations.

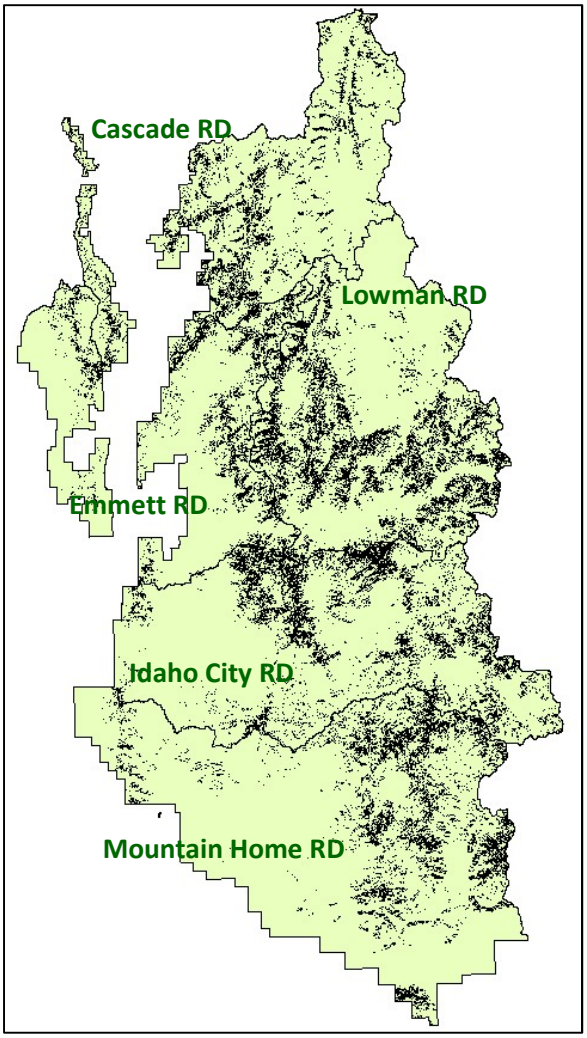
| Map Unit Composition from Systematic Inventory (n=90) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PSME-PSME dtp | Douglas-fir | 52% |
| ABLA-PSME dtp | subalpine fir – Douglas-fir | 7% |
| ABLA-ABLA dtp | subalpine fir | 7% |
| PICO dt | lodgepole pine | 6% |
| PSME-PICO dtp | Douglas-fir – lodgepole pine | 3% |
| PSME-PIPO dtp | Douglas-fir – ponderosa pine | 2% |
| Other forested dt's | | 12% |
| Early-Seral Shrub dt's | | 6% |
| Sparse Vegetation | | 3% |
| Early-Seral Herb dt's | | 2% |

**Documented Dominance Types in the Douglas-fir Map Unit**

| Forests (897) | | Shrublands (34) | | Herblands (8) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 18 | ACGL dt - Rocky Mountain maple | 11 | CAGE2 dt - elk sedge | 6 |
| ABGR-LAOC dtp | 1 | ALVIS-U dt – Sitka alder | 1 | CARU dt – pinegrass | 1 |
| ABGR-PIPO dtp | 2 | ARARA dt – low sagebrush | 1 | FEID dt – Idaho fescue | 1 |
| ABLA-ABLA dtp | 37 | ARTRV dt - mountain big sagebrush | 5 | | |
| ABLA-PIAL dtp | 2 | CEVE dt - snowbrush | 3 | | |
| ABLA-PSME dtp | 47 | LOUT2 dt – Utah honeysuckle | 1 | **Riparian (4)** | |
| LAOC dt | 1 | PHMA5 dt - ninebark | 2 | ALVIS-R dt - Sitka alder | 3 |
| PIAL dt | 1 | PREM dt - bitter cherry | 3 | POBAT dt – black cottonwood | 1 |
| PICO dt | 45 | RICE dt – wax currant | 1 | | |
| PIEN dt | 18 | SPBE2 dt – white spirea | 4 | | |
| PIPO dt | 58 | VAME dt – big huckleberry | 1 | **Sparse Vegetation (9)** | |
| PSME-PICO dtp | 39 | VASC dt – grouse whortleberry | 1 | BARREN | 3 |
| PSME-PIPO dtp | 81 | | | SP VEG – Sparse Tree | 1 |
| PSME-PSME dtp | 543 | | | SP VEG – Sparse Vegetation | 5 |
| POTR5-Conifer dtp | 2 | | | | |
| POTR5-POTR5 dtp | 2 | | | | |

**Environment:** The DF map unit ranges in elevation from 3400 to 8400 feet, but is mostly between 5300 and 7200 feet. This map unit ranges from 19 to 62 inches mean annual precipitation, but is predominantly between 30 and 50 inches. These values are all very similar to the range of the PSME-PSME dtp across the Forest.

**Distribution Map:** Extent of the DF map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 37 percent of the Douglas-fir map unit is climax Douglas-fir, 9 percent is seral to grand fir, and 54 percent is seral to subalpine fir. The relationship of dominance types to PNV Series is shown below.

The PSME-PSME dtp is usually represents the Douglas-fir Series or is seral to the Subalpine Fir Series. Occasionally it is seral to the Grand Fir Series, which is usually managed to produce ponderosa pine. Types where Douglas-fir is the PNV or where Douglas-fir is part of succession to grand fir or subalpine fir are related to the PSME-PSME dtp. Types where Douglas-fir is not part of succession to grand fir or subalpine fir are ecologically dissimilar. The degree of relationship to the PSME-PSME dtp- is shown in the Table below (plots not classified to PNV Series or dominance type are not included):

Based on the available systematic inventory data, 77 percent of this map unit consists of the PSME-PSME dtp and successionally related or ecologically similar dominance types and phases. Dissimilar dominance types make 23% of the map unit.

**Successional Relationships within the DF Map Unit: Number of Plots by Dominance Type and PNV Series (from Systematic Inventory)**

| Dominance Type or Phase | PNV Series | | |
|---|---|---|---|
| | PSME | ABGR | ABLA |
| PIPO dt | 2 | 1 | --- |
| PSME-PIPO dtp | 2 | --- | --- |
| PSME-PSME dtp | 25 | 3 | 19 |
| PSME-PICO dtp | 1 | 1 | 1 |
| ABLA-PSME dtp | | | 6 |
| Early Seral Shrubs | 3 | --- | 2 |
| Early Seral Herbs | --- | --- | 2 |
| PICO dt | --- | 1 | 4 |
| PIEN dt | | --- | 4 |
| ABGR-ABGR dtp | | 2 | |
| Sparse Vegetation | --- | --- | 2 |
| ABLA-ABLA dtp | | | 6 |
| ABLA-PIAL dtp | | | 1 |
| PIAL dt | | | 1 |

| | |
|---|---|
| PSME-PSME dtp | 53% |
| Related | 18% |
| Similar | 6% |
| Dissimilar | 23% |
| --- | Not observed |
| | Not Possible |


Douglas-fir – lodgepole pine dominance type phase (PSME-PICO dtp).


Douglas-fir – lodgepole pine dominance type phase (PSME-PICO dtp).

**Map Unit Concept:** The Douglas-fir – Lodgepole Pine map unit consists mostly of stands belonging to the PSME-PICO dtp or the related PSME-PSME dtp. Other conifer forest types are also present.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 4,002 | 1.0% |
| Emmett RD | 576 | 0.2% |
| Idaho City RD | 1,687 | 0.3% |
| Lowman RD | 3,454 | 0.7% |
| Mountain Home RD | 474 | 0.1% |
| Boise NF | 10,193 | 0.4% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 35 Plots | FIA: 1 | B-Grid: 2 | Ref: 21 | AA: 11 | Legacy: 0 |
| 25 Observations | | | | | |

**Map Unit Composition:** No spatially balanced estimate of composition is available for this map unit. Only 3 inventory plots occur in this map, so its composition is based on those plus stratified accuracy assessment plots.

The PSME-PSME dtp, PSME-PICO dtp, and the PICO dt make up about 58 percent of this map unit.

There are 60 geo-referenced observations and plots in the DFL map unit. These points document the occurrence of 13 dominance types and phases in this map unit. All 13 are listed below with the number of observations.

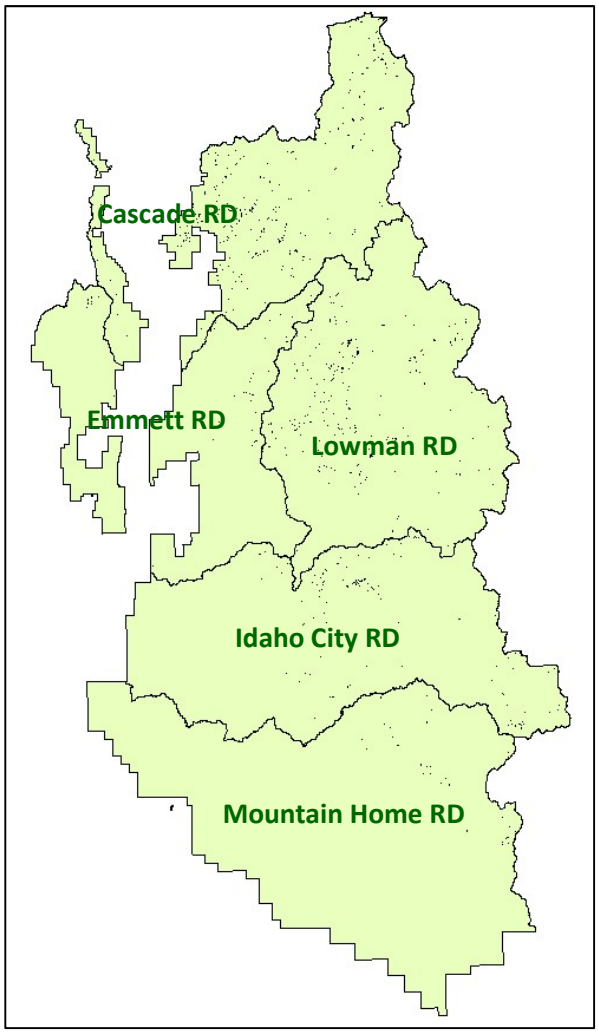
| Map Unit Composition from Accuracy Assessment and Inventory Plots (n=14) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PSME-PSME dtp | Douglas-fir | 37% |
| PSME-PICO dtp | Douglas-fir – lodgepole pine | 14% |
| ABLA-PSME dtp | subalpine fir – Douglas-fir | 14% |
| PIEN dt | Engelmann's spruce | 14% |
| PICO dt | lodgepole pine | 7% |
| ABGR-ABGR dtp | grand fir | 7% |
| CARU dt | pinegrass | 7% |

**Documented Dominance Types in the Douglas-fir – Lodgepole Pine Map Unit**

| Forests (57) | | Shrublands (2) | | Herblands (1) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 1 | ACGL dt - Rocky Mountain maple | 1 | CARU dt – pinegrass | 1 |
| ABLA-ABLA dtp | 1 | VAME dt – big huckleberry | 1 | | |
| ABLA-PSME dtp | 2 | | | | |
| PICO dt | 7 | | | | |
| PIEN dt | 2 | | | | |
| PIPO dt | 1 | | | | |
| PSME-PICO dtp | 23 | | | | |
| PSME-PIPO dtp | 1 | | | | |
| PSME-PSME dtp | 18 | | | | |
| POTR5-POTR5 dtp | 1 | | | | |

**Environment:** The DFL map unit ranges in elevation from 5100 to 7300 feet, but is mostly between 5300 and 7000 feet. This map unit ranges from 28 to 59 inches mean annual precipitation, but is predominantly between 36 and 52 inches. These values are similar to the range of the PSME-PICO dtp across the Forest.

**Distribution Map:** Extent of the DFL map unit on the Boise National Forest.



**Successional Relationships:** The PSME-PICO dtp can be seral to subalpine fir, Douglas-fir, or grand fir. The PSME-PSME dtp and the PICO dt are successionally related to the PSME-PICO dtp and have similar seral trajectories toward subalpine fir or Douglas-fir. Other types where lodgepole pine and/or Douglas-fir are seral to Douglas-fir or subalpine fir are ecologically similar to the PSME-PICO dtp. Types where lodgepole pine and Douglas-fir are not part of the successional sequence are dissimilar.

Based on the available plot data, 86 percent of this map unit consists of the PSME-PICO dtp and successionally related or ecologically similar dominance types and phases. Dissimilar dominance types make 14% of the map unit.

**Successional Relationships within the DFL Map Unit: Number of Plots by Dominance Type and PNV Series (from all field plots)**

| Dominance Type or Phase | PNV Series | | |
|---|---|---|---|
| | PSME | ABGR | ABLA |
| PIPO dt | --- | 1 | --- |
| Early Seral Herbs | --- | 1 | --- |
| ABGR-ABGR dtp | | 1 | |
| Early Seral Shrubs | 1 | --- | 1 |
| PSME-PSME dtp | 4 | --- | 10 |
| PSME-PICO dtp | 2 | 1 | 4 |
| PICO dt | 1 | --- | 3 |
| ABLA-PSME dtp | | | 2 |
| ABLA-ABLA dtp | | | 1 |
| PIEN dt | | --- | 2 |

| | |
|---|---|
| PSME-PICO dtp | 20% |
| Related | 52% |
| Similar | 14% |
| Dissimilar | 14% |
| --- | Not observed |
| | Not Possible |


Douglas-fir – ponderosa pine dominance type phase (PSME-PIPO dtp).


Douglas-fir – ponderosa pine dominance type phase (PSME-PIPO dtp).

**Map Unit Concept:** The Douglas-fir – Ponderosa Pine map unit consists mostly of stands belonging to the Douglas-fir and Ponderosa Pine dominance types (PSME dt and PIPO dt). It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

This map unit was intended to map the PSME-PIPO dtp, but it is better interpreted as a mosaic of the PIPO and PSME dt's. Based on the available FIA and B-Grid data, the PSME-PIPO dtp makes up only 10 percent of this map unit.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 11,721 | 2.9% |
| Emmett RD | 33,263 | 9.4% |
| Idaho City RD | 24,590 | 4.3% |
| Lowman RD | 11,779 | 2.5% |
| Mountain Home RD | 18,801 | 2.6% |
| Boise NF | 100,154 | 4.0% |

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 131 Plots | FIA: 8 | B-Grid: 13 | Ref: 80 | AA: 20 | Legacy: 10 |
| 256 Observations | | | | | |

**Map Unit Composition:** Based on the available FIA and B-Grid data, the Ponderosa Pine dt makes up 19 percent of this map unit and the Douglas-fir dt makes up 39 percent. The PSME-PIPO dtp makes up only 10 percent of this map unit. This map unit includes just 9 percent of the PSME-PIPO dtp on the Forest. Most of the PSME-PIPO dtp is within the PP map unit.

There are 386 geo-referenced observations and plots in the Douglas-fir map unit. These points document the occurrence of 20 dominance types and phases in

| Map Unit Composition from Systematic Inventory (n=21) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PSME-PSME dtp | Douglas-fir | 39% |
| PIPO dt | ponderosa pine | 19% |
| PSME-PIPO dtp | Douglas-fir – ponderosa pine | 10% |
| ABGR-PIPO dtp | grand fir – ponderosa pine | 10% |
| PSME-PICO dtp | Douglas-fir – lodgepole pine | 10% |
| PICO dt | lodgepole pine | 4% |
| PIEN dt | Engelmann spruce | 4% |
| Forest Shrublands | | 4% |

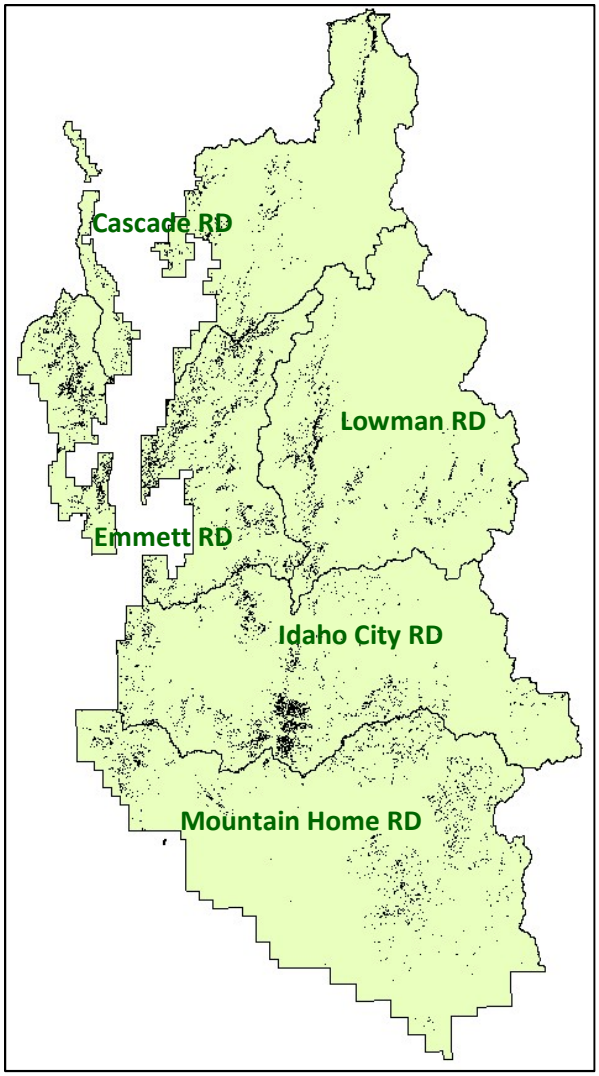
this map unit. All 20 are listed below with the number of observations.

**Documented Dominance Types in the Douglas-fir – Ponderosa Pine Map Unit.**

| Forests (376) | | Shrublands (6) | | Herblands (0) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 18 | ACGL dt – Rocky Mountain maple | 1 | | |
| ABGR-PIPO dtp | 10 | ARTRV dt – mountain big sagebrush | 1 | | |
| ABLA-ABLA dtp | 8 | PHMA5 dt - ninebark | 1 | | |
| ABLA-PSME dtp | 8 | PREM dt – bitter cherry | 1 | | |
| PICO dt | 3 | PRVI dt – chokecherry | 1 | | |
| PIEN dt | 11 | SASC dt - Scouler's willow | 1 | **Riparian (3)** | |
| PIPO dt | 50 | | | ALINT dt – gray alder | 2 |
| PSME-PICO dtp | 6 | | | COSE16 dt – redosier dogwood | 1 |
| PSME-PIPO dtp | 155 | | | | |
| PSME-PSME dtp | 106 | | | | |
| POTR5-Conifer dtp | 1 | | | **Sparse Vegetation (1)** | |
| | | | | SP VEG – Sparse Vegetation | 1 |

**Environment:** The DFP map unit ranges in elevation from 3200 to 6500 feet, but is mostly between 4500 and 6100 feet. This map unit ranges from 21 to 55 inches mean annual precipitation, but is predominantly between 29 and 42 inches. These values are all very similar to the range of the PSME-PIPO dtp across the Forest.

**Distribution Map:** Extent of the DFP map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 57 percent of the Douglas-fir map unit is climax Douglas-fir, 29 percent is seral to subalpine fir, and 14 percent is seral to grand fir. The relationship of dominance types to PNV Series is shown below.

The PSME-PSME dtp, PIPO dt, and PSME-PIPO dtp are seral to either Douglas-fir or grand fir and follow similar seral trajectories toward those PNV series. The Douglas-fir and Grand Fir Series, and dominance types seral to them, are ecologically similar to the PSME-PSME dtp, PIPO dt, and PSME-PIPO dtp. Forest dominance types where ponderosa pine and Douglas-fir are not part of the seral progression toward grand fir or subalpine fir are dissimilar to the PSME-PIPO dtp (indicated by red shading in the table below). These include stands where lodgepole pine or Engelmann spruce are seral to grand fir or subalpine fir. The degree of relationship to the PSME-PIPO dtp is shown in the adjacent table (plots not classified to PNV Series or dominance type are not included).

**Successional Relationships within the DFP Map Unit: Number of Plots by Dominance Type and PNV Series (from Systematic Inventory)**

| Dominance Type or Phase | PNV Series | | |
|---|---|---|---|
| | PSME | ABGR | ABLA |
| PIPO dt | 4 | --- | --- |
| PSME-PIPO dtp | 2 | --- | --- |
| PSME-PSME dtp | 5 | --- | 3 |
| PSME-PICO dtp | 1 | --- | 1 |
| ABGR-PIPO dtp | | 2 | |
| PICO dt | --- | 1 | --- |
| PIEN dt | | --- | 1 |
| SASC dt | --- | --- | 1 |

| | |
|---|---|
| PSME-PIPO dtp | 10% |
| Related | 43% |
| Similar | 14% |
| Dissimilar | 33% |
| --- | Not observed |
| | Not Possible |

Based on the available systematic inventory data, 67 percent of this map unit consists of the PSME-PIPO dtp and successionally related or ecologically similar dominance types and phases. However, the PSME-PIPO dtp is only 10 percent of the map unit. Dissimilar dominance types make up 33 percent of the map unit.

Engelmann's spruce dominance type (PIEN dt).

Engelmann's spruce dominance type (PIEN dt).

**Map Unit Concept:** The Engelmann Spruce map unit consists mostly of stands belonging to the PIEN dt. It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 9,725 | 2.4% |
| Emmett RD | 3,276 | 0.9% |
| Idaho City RD | 297 | 0.1% |
| Lowman RD | 1,631 | 0.3% |
| Mountain Home RD | 50 | <0.1% |
| Boise NF | 14,979 | 0.6% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 18 Plots | FIA: 0 | B-Grid: 2 | Ref: 10 | AA: 1 | Legacy: 5 |
| 58 Observations | | | | | |

**Map Unit Composition:** A spatially balance estimate of composition is not available for this map unit. Based on all available plot data, 45% of the map unit is the PIEN dt. The ABLA-ABLA dtp and ABGR-ABGR dtp are also important components of this map unit.

There are 76 geo-referenced, classified observations and plots in the Engelmann Spruce map unit. These points document the occurrence of 11 dominance types and phases in this map unit. All 11 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

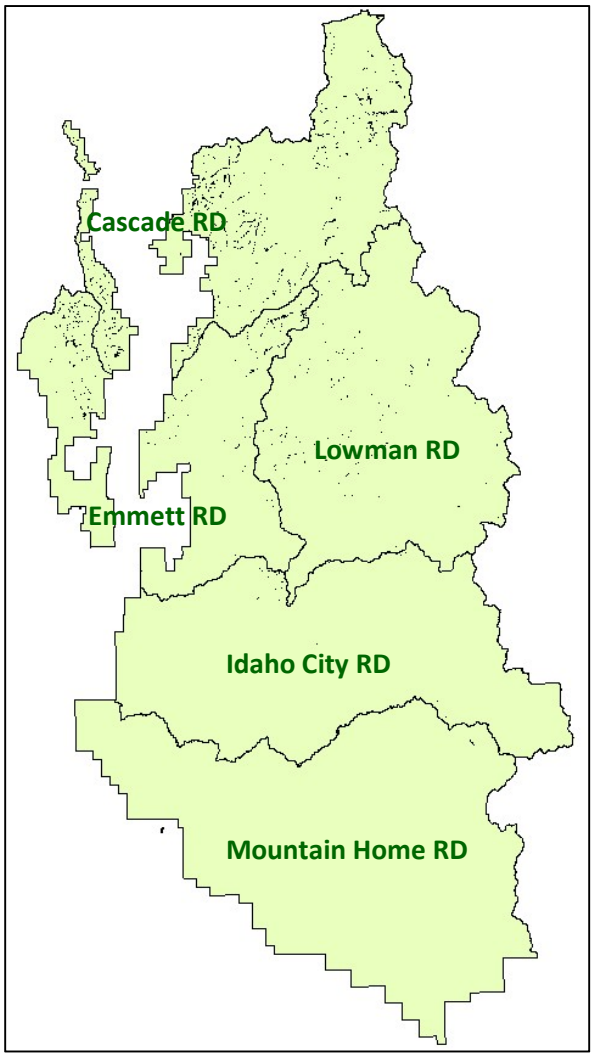
| Map Unit Composition from All Field Plots (n=18) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PIEN dt | Engelmann's spruce | 44% |
| ABGR-ABGR dtp | grand fir | 11% |
| ABLA-ABLA dtp | subalpine fir | 11% |
| PICO dt | lodgepole pine | 6% |
| PSME-PICO dtp | Douglas-fir – lodgepole pine | 6% |
| PSME-PSME dtp | Douglas-fir | 6% |
| Riparian Shrublands | | 16% |

**Documented Dominance Types in the Engelmann Spruce Map Unit.**

| Forests (73) | | Shrublands (0) | Herblands (0) | |
|---|---|---|---|---|
| ABGR-ABGR dtp | 6 | | | |
| ABLA-ABLA dtp | 3 | | | |
| ABLA-PSME | 1 | | | |
| LAOC dt | 1 | | | |
| PICO dt | 5 | | | |
| PIEN dt | 46 | | **Riparian (3)** | |
| PSME-PICO dtp | 1 | | ALVIS-R dt – Sitka alder | 2 |
| PSME-PIPO dtp | 4 | | SADR dt – Drummond's willow | 1 |
| PSME-PSME dtp | 6 | | | |

**Environment:** The ES map unit ranges in elevation from 4800 to 7400 feet, but is mostly between 5400 and 7100 feet. This map unit ranges from 29 to 63 inches mean annual precipitation, but is predominantly between 39 and 58 inches. These ranges are all narrower than the ranges of the PIEN dt across the Forest.

**Distribution Map:** Extent of the ES map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 61 percent of the Engelmann Spruce map unit is climax subalpine fir and 17 percent is seral to grand fir. The relationship of dominance types to PNV Series is shown below.

The PIEN dt is seral to subalpine fir or grand fir in this map unit. It is successionally related to the ABGR-ABGR dtp and the ABLA-ABLA dtp. Other dominance types or phases seral to subalpine fir or grand fir are ecologically similar to the PIEN dt. The degree of relationship to the PIEN dt is shown in the adjacent table (plots not classified to PNV Series or dominance type are not included).

Based on the available systematic inventory data, 83 percent of this map unit consists of the PIEN dt and ecologically related or similar dominance types and phases. Dissimilar types make up 17 percent of the map unit.

**Successional Relationships within the SA Map Unit: Number of Plots by Dominance Type and PNV Series (from All Plot Data)**

| Dominance Type or Phase | PNV Series | | | |
|---|---|---|---|---|
| | ABGR | ABLA | PIEN | Riparian |
| PICO dt | --- | 1 | --- | |
| PSME-PICO dtp | --- | 1 | --- | |
| PSME-PSME dtp | --- | 1 | --- | |
| ABGR-ABGR dtp | 2 | | | |
| PIEN dt | 1 | 6 | 1 | |
| ABLA-ABLA dtp | | 2 | | |
| Riparian Shrub | | | | 3 |

| | |
|---|---|
| PIEN dt | 44% |
| Related | 22% |
| Similar | 17% |
| Dissimilar | 17% |
| --- Not observed | |
| Not Possible | |

Grand fir dominance type phase (ABGR-ABGR dtp).

Grand fir dominance type phase (ABGR-ABGR dtp).

**Map Unit Concept:** The Grand Fir map unit consists mostly of stands belonging to the Grand Fir dominance type phase (ABGR- ABGR dtp). It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 4,608 | 1.1% |
| Emmett RD | 9,366 | 2.6% |
| Idaho City RD | ----- | ---- |
| Lowman RD | ----- | ---- |
| Mountain Home RD | ----- | ---- |
| Boise NF | 13,988 | 0.6% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 37 Plots | FIA: 3 | B-Grid: 2 | Ref: 22 | AA: 9 | Legacy: 1 |
| 39 Observations | | | | | |

**Map Unit Composition:** Only five systematic inventory plots are available in this map unit. Composition of this map unit is based on accuracy assessment and systematic inventory plots, even though it is not a spatially balanced sample. Based on the available data, 73% of the map unit, or 10,200 acres, is the ABGR-ABGR dtp. The GF map unit includes about 50% of the ABGR-ABGR dtp on the Forest, based on systematic inventory data. The ABGR-PIPO dtp makes up 13% of the map unit.

| Map Unit Composition from Accuracy Assessment and Systematic Inventory (n=15) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| ABGR-ABGR dtp | grand fir | 73% |
| ABGR-PIPO dtp | grand fir – ponderosa pine | 13% |
| LAOC dt | western larch | 7% |
| ALVIS dt | Sitka alder (riparian) | 7% |

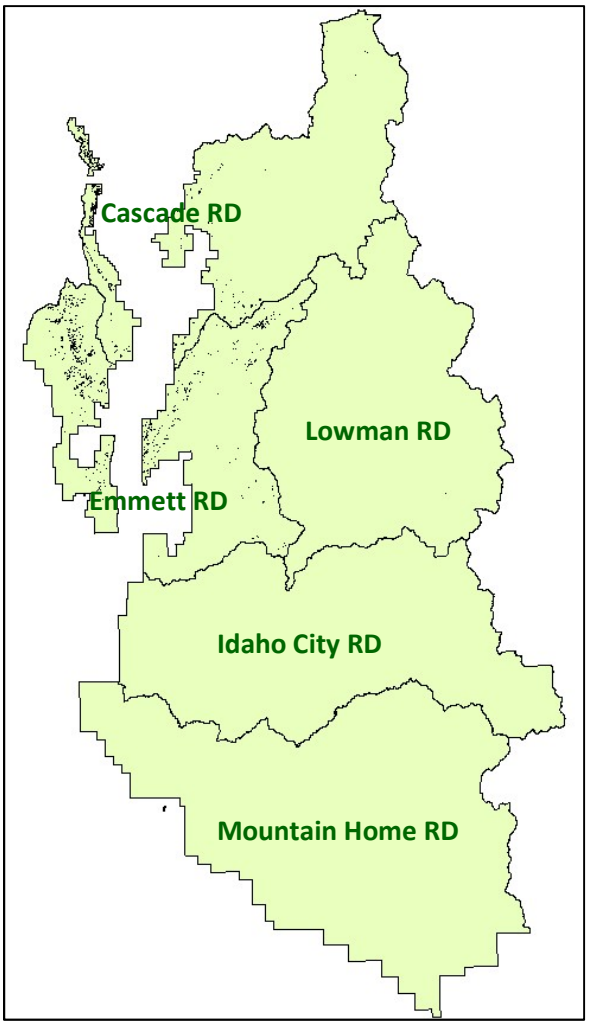
There are 76 geo-referenced observations and plots in the Grand Fir map unit. These points document the occurrence of 12 dominance types and phases in this map unit. All 12 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

**Documented Dominance Types in the Grand Fir Map Unit.**

| Forests (72) | | Shrublands (2) | | Herblands (1) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 47 | ALVIS-U dt Sitka alder | 1 | Unidentified Forb dt | 1 |
| ABGR-PIPO dtp | 7 | VAME dt – big huckleberry | 1 | | |
| ABLA-ABLA dtp | 1 | | | | |
| ABLA-PSME dtp | 1 | | | | |
| LAOC dt | 1 | | | | |
| PIEN dt | 6 | | | **Riparian (1)** | |
| PIPO dt | 1 | | | ALVIS-R dt - Sitka alder | 1 |
| PSME-PIPO dtp | 5 | | | | |
| PSME-PSME dtp | 3 | | | | |

**Environment:** The GF map unit ranges in elevation from 4100 to 6400 feet, but is mostly between 4800 and 6100 feet. This map unit ranges from 29 to 51 inches mean annual precipitation, but is predominantly between 33 and 47 inches. These values are all somewhat narrower than the range of the ABGR-ABGR dtp across the Forest.

**Distribution Map:** Extent of the GF map unit on the Boise National Forest.




**Successional Relationships:** Based on systematic inventory and accuracy assessment data, 93 percent of the Grand Fir map unit is climax grand fir and 7 percent is riparian.

The ABGR-ABGR dtp is always climax grand fir because it is the most shade-tolerant tree species on the Boise NF. The ABGR-PIPO dtp and the LAOC dt are seral to the Grand Fir Series, so they are successionally related to the ABGR-ABGR dtp.

Based on the available data, 93 percent of this map unit consists of the ABGR-ABGR dtp and successionally related dominance types and phases. Dissimilar dominance types make 7% of the map unit.


Grand fir – ponderosa pine dominance type phase (ABGR-PIPO dtp).


Grand fir – ponderosa pine dominance type phase (ABGR-PIPO dtp).

**Map Unit Concept:** The Grand Fir – Ponderosa Pine map unit consists mostly of stands belonging to the ABGR-ABGR dtp and the PIPO dt.

It was intended to delineate the ABGR-PIPO dtp, but it is better treated as a mosaic of the ABGR-ABGR dtp and the PIPO dt.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 3,003 | 0.7% |
| Emmett RD | 1,305 | 0.4% |
| Idaho City RD | ----- | ---- |
| Lowman RD | 12 | <0.1% |
| Mountain Home RD | ----- | ---- |
| Boise NF | 4,321 | 0.2% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 135 Plots | FIA: 37 | B-Grid: 53 | Ref: 11 | AA: 29 | Legacy: 5 |
| 677 Observations | | | | | |

**Map Unit Composition:** Due to its small extent, only one systematic inventory plot occurs within it. There are 7 accuracy assessment plots in it, but this is not a spatially balanced estimate of composition.

There are 30 geo-referenced observations and plots in the GFP map unit. All 12 are listed below with the number of observations.

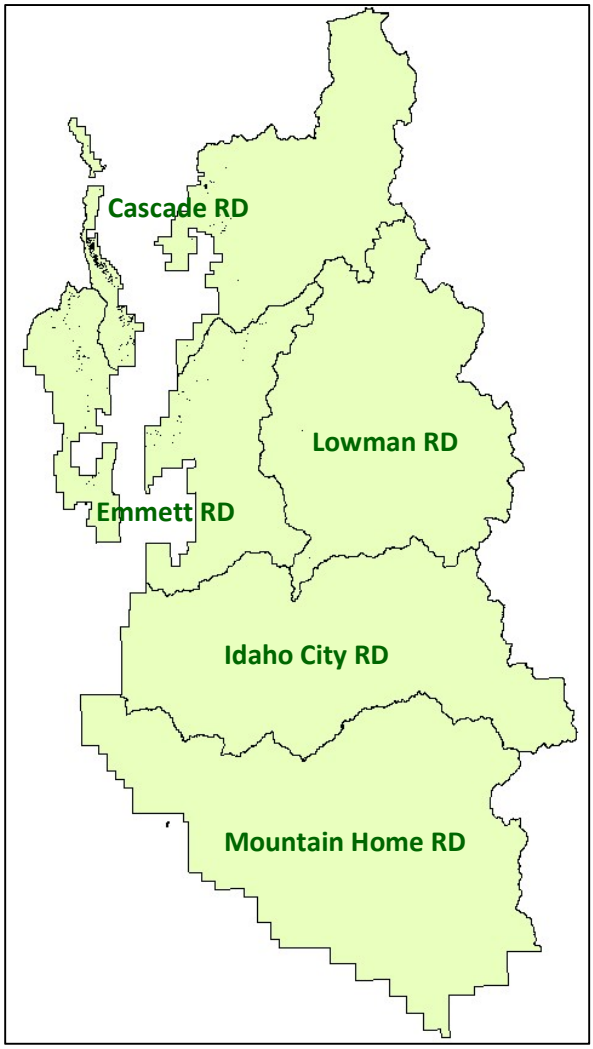
| Map Unit Composition from Accuracy Assessment and Systematic Inventory (n=8) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| ABGR-ABGR dtp | grand fir | 37.5% |
| PIPO dt | ponderosa pine | 37.5% |
| PIEN dt | Engelmann's spruce | 25% |

**Documented Dominance Types in the Grand Fir – Ponderosa Pine Map Unit.**

| Forests (30) | | Shrublands (0 | Herblands (0) |
|---|---|---|---|
| ABGR-ABGR dtp | 6 | | |
| ABGR-LAOC dtp | 2 | | |
| ABGR-PIPO dtp | 3 | | |
| ABLA-ABLA dtp | 1 | | |
| PIEN dt | 7 | | |
| PIPO dt | 6 | | **Riparian (0)** |
| PSME-PIPO dtp | 4 | | |
| PSME-PSME dtp | 1 | | **Sparse Vegetation (0)** |
| | | | |

**Environment:** Based on 30 observations, this map unit ranges from 4900 to 6200 feet in elevation and 35 to 50 inches mean annual precipitation.

**Distribution Map:** Extent of the GFP map unit on the Boise National Forest.




**Successional Relationships:** There is not enough plot data from this map unit to fully describe successional relationships, but it mostly to seral to the Grand Fir Series with some of the PIPO dt seral to Douglas-fir.

Lodgepole pine dominance type (PICO dt).

Lodgepole pine dominance type (PICO dt).

**Map Unit Concept:** The Lodgepole Pine map unit consists mostly of stands belonging to the Lodgepole Pine dominance type (PICO dt). It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 68,820 | 17.2% |
| Emmett RD | 9,958 | 2.8% |
| Idaho City RD | 8,202 | 1.4% |
| Lowman RD | 79,410 | 16.9% |
| Mountain Home RD | 4,281 | 0.6% |
| Boise NF | 170,671 | 6.8% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 135 Plots | FIA: 18 | B-Grid: 19 | Ref: 123 | AA: 13 | Legacy: 7 |
| 489 Observations | | | | | |

**Map Unit Composition:** Based on the available FIA and B-Grid data, 43% of the map unit, or 73,000 acres, is the Lodgepole Pine dt. The LP map unit includes about 62% of the PICO dt on the Forest. The ABLA-ABLA dtp makes up 18% of the map unit and the PSME-PSME dtp makes up 11%. Other forested dominance types make up 22% of the map unit. Early seral shrubland and sparse vegetation make up 6% of the map unit.

There are 662 geo-referenced observations and plots in the Lodgepole Pine map unit. These points document the occurrence of 30 dominance types and phases in this map unit. All 30 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

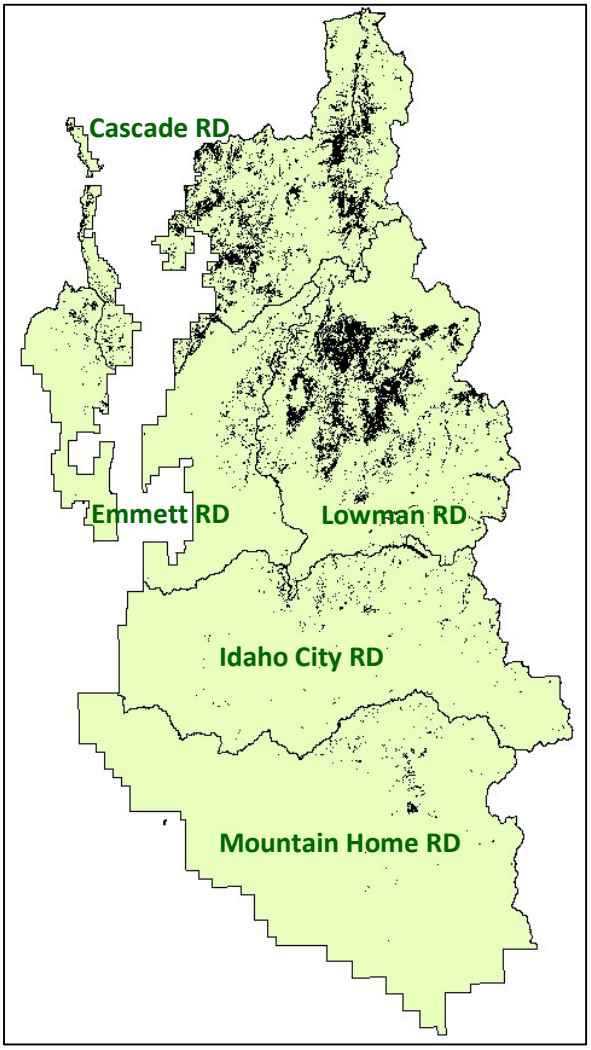
| Map Unit Composition from Systematic Inventory (n=37) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PICO dt | lodgepole pine | 43% |
| ABLA-ABLA dtp | subalpine fir | 18% |
| PSME-PSME dtp | Douglas-fir | 11% |
| PIEN dt | Engelmann's spruce | 8% |
| PSME-PICO dtp | Douglas-fir – lodgepole pine | 8% |
| ABLA-PSME dtp | subalpine fir – Douglas-fir | 3% |
| PSME-PIPO dtp | Douglas-fir – ponderosa pine | 3% |
| Early-Seral Shrub dt's | | 3% |
| Sparse Vegetation | | 3% |

**Documented Dominance Types in the Lodgepole Pine Map Unit.**

| Forests (633 | | Shrublands (8) | | Riparian (6) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 7 | ACGL dt – Rocky Mtn. maple | 1 | ALINT dt – gray alder | 1 |
| ABLA-ABLA dtp | 44 | ARTRV dt - mtn. big sage | 1 | CALU7 dt – woodrush sedge | 1 |
| ABLA-PSME dtp | 9 | CEVE dt - snowbrush | 2 | METR3 dt – buckbean | 1 |
| LAOC dt | 1 | SASC dt - Scouler's willow | 2 | POBAT dt – black cottonwood | 1 |
| PIAL dt | 1 | VAME dt – big huckleberry | 1 | SACO2 dt – undergreen willow | 1 |
| PICO dt | 425 | VASC dt – grouse whortleberry | 1 | SADR dt – Drummond's willow | 1 |
| PIEN dt | 46 | | | | |
| PIPO dt | 15 | | | | |
| PSME-PICO dtp | 34 | **Herblands (13)** | | | |
| PSME-PIPO dtp | 7 | CAGE2 dt – elk sedge | 7 | | |
| PSME-PSME dtp | 41 | CARU dt – pinegrass | 5 | **Sparse Vegetation (2)** | |
| POTR5-Conifer dtp | 1 | JUPA dt – Parry's rush | 1 | BARREN | 1 |
| POTR5-POTR5 dtp | 2 | | | SP HERB - Sparse Herb | 1 |

**Environment:** The LP map unit ranges in elevation from 4500 to 8000 feet, but is mostly between 5700and 7300 feet. This map unit ranges from 26 to 65 inches mean annual precipitation, but is predominantly between 41 and 54 inches. The PICO dt ranges from 29 to 67 inches precipitation across the Forest with elevation mostly between 5700 and 7800 feet.

**Distribution Map:** Extent of the LP map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 89 percent of the Lodgepole Pine map unit is seral to subalpine fir and 11 percent is seral to Douglas-fir. None of the systematic inventory plots were seral to grand fir. The relationship of dominance types to PNV Series is shown below.

The PSME-PICO dtp is successionally related to the PICO dt and follows similar seral trajectories toward the Subalpine Fir Series. The Subalpine Fir Series, and dominance types seral to it, are ecologically similar to the PICO dt. This is because the PICO dt consists largely of managed or recently disturbed stands within the Subalpine Fir Series. Forest dominance types where lodgepole pine dominance is not part of the seral progression toward subalpine fir are dissimilar to the PICO dt (indicated by red shading in the table below). The degree of relationship to the PICO dt is shown in the Table below (plots not classified to PNV Series or dominance type are not included):

**Successional Relationships within the LP Map Unit: Number of Plots by Dominance Type and PNV Series (from Systematic Inventory)**

| Dominance Type or Phase | PNV Series | | |
|---|---|---|---|
| | PSME | ABGR | ABLA |
| PICO dt | --- | --- | 16 |
| PSME-PICO dtp | 2 | --- | 1 |
| ABLA-PSME dtp | | | 1 |
| ABLA-ABLA dtp | | | 7 |
| PIEN dt | | --- | 3 |
| PSME-PSME dtp | --- | --- | 4 |
| Early Seral Shrubs | 1 | --- | --- |
| PSME-PIPO dtp | 1 | --- | --- |

| | |
|---|---|
| PICO dt | 44% |
| Related | 8% |
| Similar | 42% |
| Dissimilar | 6% |
| --- | Not observed |
| | Not Possible |

Based on the available systematic inventory data, 92 percent of this map unit consists of the PICO dt and successionally related or ecologically similar dominance types. Dissimilar dominance types make 6% of the map unit.

Ponderosa pine dominance type (PIPO dt).

Ponderosa pine dominance type (PIPO dt).

**Map Unit Concept:** The Ponderosa Pine map unit consists mostly of stands belonging to the Ponderosa Pine dominance type (PIPO dt). It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 24,530 | 6.1% |
| Emmett RD | 167,697 | 47.4% |
| Idaho City RD | 233,471 | 41.1% |
| Lowman RD | 49,133 | 10.5% |
| Mountain Home RD | 131,471 | 17.9% |
| Boise NF | 606,302 | 24.0% |

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 465 Plots | FIA: 54 | B-Grid: 65 | Ref: 230 | AA: 32 | Legacy: 84 |
| 1192 Observations | | | | | |

**Map Unit Composition:** Based on the available FIA and B-Grid data, 57% of the map unit, or 346,000 acres, is the Ponderosa Pine d.t. The PP map unit includes about 87% of the PIPO d.t. on the Forest, but only 57% of the map unit is the PIPO dt. The PSME-PIPO dtp and PSME-PSME dtp each make up 13% of the map unit (about 79,000 acres). The remaining 17% of the PP map unit (about 103,000 acres) includes eight more dominance types or phases.

There are 1644 geo-referenced observations and plots in the Ponderosa Pine map unit. These points document the occurrence of 61 dominance types and phases in this map unit. All 61 are listed above with the number of observations.

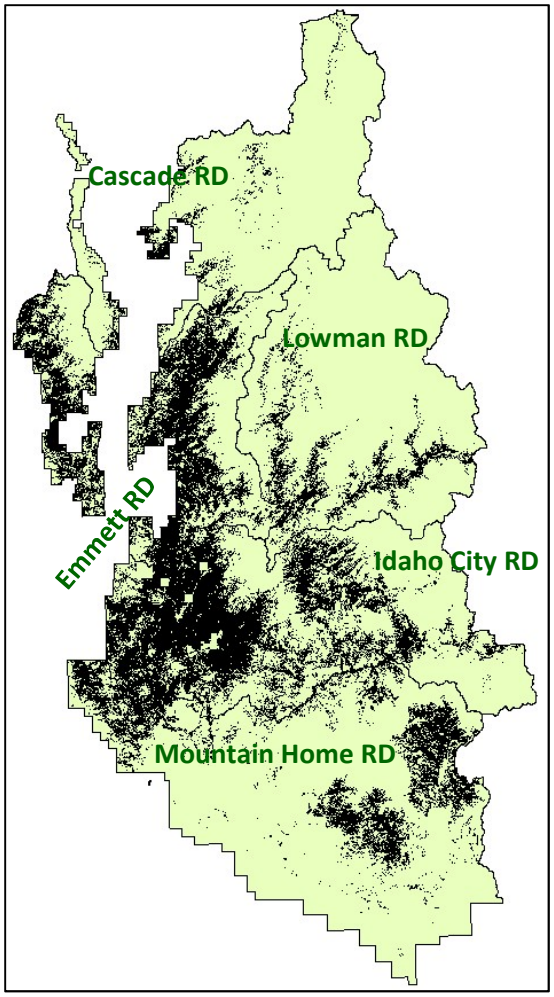
| Map Unit Composition from Systematic Inventory (n=119) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| PIPO dt | ponderosa pine | 57% |
| PSME-PIPO dtp | Douglas-fir – ponderosa pine | 13% |
| PSME-PSME dtp | Douglas-fir | 13% |
| Other Forest types | | 6% |
| Early-Seral Shrub dt's | | 8% |
| Early-Seral Herb dt's | | 1% |
| Sparse Vegetation | | 1% |
| Unclassified Stands | | 2% |

**Documented Dominance Types in the Ponderosa Pine Map Unit.**

| Forests and Woodlands (1494) | | Shrublands (64) | | Herblands (24) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 40 | ACGL dt – Rocky Mountain maple | 3 | BASA3 dt – arrowleaf balsamroot | 1 |
| ABGR-LAOC dtp | 1 | AMAL2 dt – serviceberry | 1 | BRTE dt - cheatgrass | 3 |
| ABGR-PIPO dtp | 24 | ARTRV dt – mtn. big sagebrush | 4 | CAGE2 dt - elk sedge | 3 |
| ABLA-ABLA dtp | 15 | ARTRW8 dt – Wyo. big sagebrush | 1 | CHAN9 dt - fireweed | 1 |
| ABLA-LAOC dtp | 1 | CEVE dt – snowbrush ceanothus | 22 | CHJU dt – rush skeletonweed | 1 |
| ABLA-PSME dtp | 9 | PHMA5 dt – mallow ninebark | 10 | EPBR3 dt – tall annual willowherb | 1 |
| LAOC dt | 2 | PREM dt – bitter cherry | 2 | FEID dt - Idaho fescue | 1 |
| PICO dt | 30 | PRVI dt – chokecherry | 6 | LUSE4 dt - silky lupine | 1 |
| PIEN dt | 27 | PUTR2 dt – antelope bitterbrush | 6 | POBU dt - bulbous bluegrass | 3 |
| PIPO dt | 904 | SARA2 dt – red elderberry | 1 | POWH2 dt - Wheeler bluegrass | 1 |
| PSME-PICO dtp | 18 | SASC dt – Scouler's willow | 3 | PSSP6 dt - bluebunch wheatgrass | 7 |
| PSME-PIPO dtp | 249 | SPBE2 dt – white spirea | 5 | | |
| PSME-PSME dtp | 165 | **Riparian (39)** | | | |
| POTR5-Conifer dtp | 2 | ALIN2 dt - gray alder | 8 | JUEN dt - swordleaf rush | 1 |
| POTR5-POTR5 dtp | 6 | BEOC2 dt - water birch | 5 | PHLE4 dt - mock orange | 1 |
| CELE3 dt | 1 | CALE8 dt - lakeshore sedge | 2 | POBAT dt - black cottonwood | 5 |
| **Sparse Vegetation (6)** | | CAUT dt - NW Territory sedge | 1 | RAAQ dt - water buttercup | 1 |
| BARREN | 1 | COSE16 dt – redosier dogwood | 1 | RIHU dt - north. black currant | 1 |
| SP TREE - Sparse Tree | 1 | CRDO2 dt - black hawthorn | 2 | SADR dt - Drummond willow | 1 |
| SP VEG – Sparse Vegetation | 4 | ELRO2 dt - beaked spikerush | 1 | SAEX dt - coyote willow | 2 |
| | | FRPU7 dt – Cascara buckthorn | 2 | SALIX dt - willow | 2 |
| | | JUARL dt – Baltic rush | 1 | SAME2 dt - dusky willow | 2 |

**Environment:** The PP map unit ranges in elevation from 2900 to 6850 feet, but is mostly between 4075 and 5950 feet. This map unit ranges from 19 to 52 inches mean annual precipitation, but is predominantly between 26 and 39 inches. These values are all very similar to the range of the PIPO dt across the Forest.

**Distribution Map:** Extent of the PP map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 80 percent of the Ponderosa Pine map unit is seral to Douglas-fir. The rest of the map unit is climax ponderosa pine (7%), or seral to grand-fir (5%) or Subalpine fir (8%). The relationship of dominance types to PNV Series is shown below.

The PSME-PIPO dtp is successionally related to the PIPO dt and follows similar seral trajectories toward the Douglas-fir, Grand fir, and Subalpine fir Series. Most shrub and herb dominance types in this map unit are seral to the Douglas-fir Series, but bitterbrush (PUTR2 dt) and snowbrush ceanothus (CEVE dt) may also be seral to ponderosa pine. The Douglas-fir Series, and dominance types seral to it, are ecologically similar to the PIPO dt. This is because the PIPO dt consists largely of managed or recently disturbed stands within the Douglas-fir Series. Forest dominance types where ponderosa pine is not part of the seral progression toward Douglas-fir, grand fir, or subalpine fir are dissimilar to the PIPO dt (indicated by red shading in the table below). These include stands where aspen or lodgepole pine are seral to Douglas-fir, and stands where Douglas-fir is seral to grand fir or subalpine fir. The degree of relationship to the PIPO dt is shown in the adjacent table (unclassified plots not included):

**Successional Relationships within the PP Map Unit: Number of Plots by Dominance Type and PNV Series (from Systematic Inventory)**

| Dominance Type or Phase | PNV Series | | | |
|---|---|---|---|---|
| | PIPO | PSME | ABGR | ABLA |
| PIPO dt | 6 | 56 | 3 | 3 |
| PSME-PIPO dtp | --- | 13 | 2 | 1 |
| PUTR2 dt | 1 | --- | --- | --- |
| CEVE dt | 1 | 3 | --- | --- |
| Sparse Tree | --- | 1 | --- | --- |
| ACGL dt | --- | 1 | --- | --- |
| SPBE2 dt | --- | 1 | --- | --- |
| SASC dt | --- | 1 | --- | --- |
| CAGE2 dt. | --- | 1 | --- | --- |
| PSME-PSME dtp | | 14 | --- | 1 |
| POTR5-POTR5 dtp | | 1 | --- | --- |
| PSME-PICO dtp | | 1 | --- | 2 |
| ABGR-ABGR dtp | | | 1 | --- |
| PIEN dt | | | --- | 1 |
| ABLA-ABLA dt | | | --- | 1 |

| | |
|---|---|
| PIPO dt | 57% |
| Related | 15% |
| Similar | 19% |
| Dissimilar | 9% |
| --- | Not observed |
| | Not Possible |

Based on the available systematic inventory data, 91 percent of this map unit consists of the PIPO dt and successionally related or ecologically similar dominance types. Dissimilar dominance types make 9% of the map unit.

Subalpine fir dominance type phase (ABLA-ABLA dtp).

Subalpine fir – Douglas-fir dominance type phase (ABLA-PSME dtp).

**Map Unit Concept:** The Subalpine Fir Mix map unit consists mostly of stands belonging to the ABLA-ABLA dtp and ABLA-PSME dtp, and stands of the PSME-PSME dtp that are seral to subalpine fir. It also includes other similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

This map unit is essentially a mosaic of the ABLA-ABLA and PSME-PSME dtp's, with smaller amounts of other forested types.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 57,847 | 14.4% |
| Emmett RD | 13,545 | 3.8% |
| Idaho City RD | 24,442 | 4.3% |
| Lowman RD | 75,242 | 16.1% |
| Mountain Home RD | 16,909 | 2.3% |
| Boise NF | 187,986 | 7.4% |

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 153 Plots | FIA: 22 | B-Grid: 15 | Ref: 88 | AA: 12 | Legacy: 16 |
| 289 Observations | | | | | |

**Map Unit Composition:** Based on the available FIA and B-Grid data, the ABLA-ABLA and ABLA-PSME dpt 's make up 46 percent of the map unit, or about 86,000 acres. The PSME-PSME dtp makes up 27 percent of the map unit. Other forested dominance types and phases make up 25 percent of the map unit. Sparse vegetation makes up 3 percent of the map unit.

There are 442 geo-referenced observations and plots in the Grand Fir map unit. These points document the occurrence of 36 dominance types and phases in this map unit. All 36 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

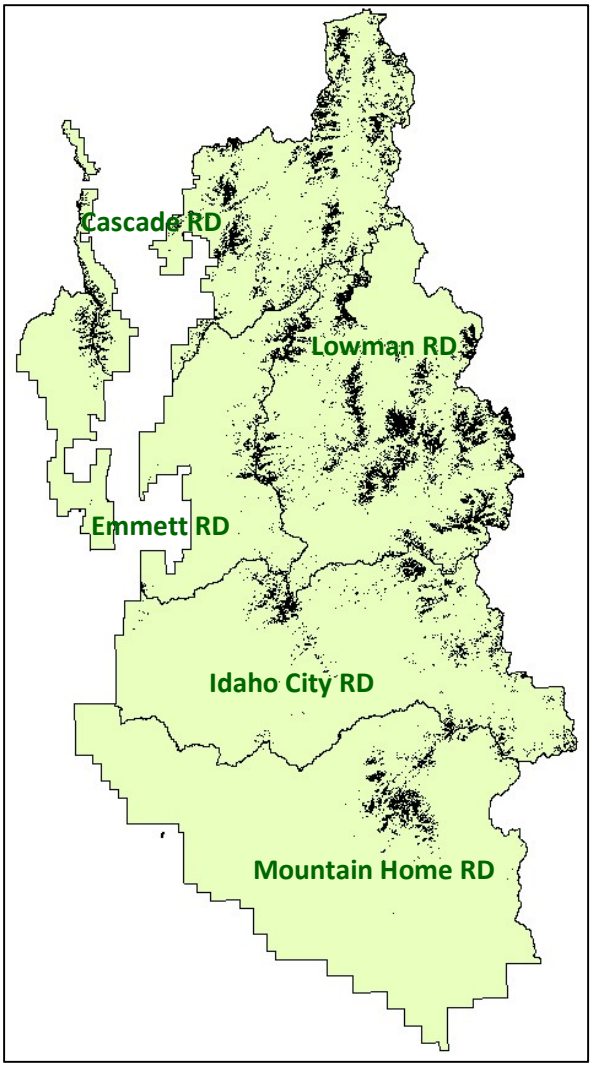
| Map Unit Composition from Systematic Inventory (n=37) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| ABLA-ABLA dtp | subalpine fir | 38% |
| PSME-PSME dtp | Douglas-fir | 27% |
| ABLA-PSME dtp | subalpine fir – Douglas-fir | 8% |
| PIEN dt | Engelmann's spruce | 8% |
| PICO dt | lodgepole pine | 5% |
| Other forested dt's | | 11% |
| Sparse Vegetation | | 3% |

**Documented Dominance Types in the Subalpine Fir Mix Map Unit.**

| Forests (897) | | Shrublands (7) | | Herblands (8) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 2 | ARTRV dt - mtn. big sagebrush | 2 | ARAC2 dt – prickly sandwort | 1 |
| ABLA-ABLA dtp | 205 | LOUT2 dt – Utah honeysuckle | 1 | BASA3 dt – arrowleaf balsamroot | 1 |
| ABLA-LAOC dtp | 1 | SPBE2 dt – white spirea | 1 | CAGE2 dt - elk sedge | 1 |
| ABLA-PIAL dtp | 6 | VAME dt – big huckleberry | 2 | CARU dt – pinegrass | 1 |
| ABLA-PSME | 51 | VASC dt – grouse whortleberry | 1 | FEID dt – Idaho fescue | 2 |
| LAOC dt | 1 | | | JUPA dt – Parry's rush | 1 |
| PIAL dt | 4 | | | LUAR3 dt – silvery lupine | 1 |
| PICO dt | 57 | **Riparian (5)** | | LUSE4 dt – silky lupine | 2 |
| PIEN dt | 19 | ALINT dt – gray alder | 1 | POPH dt – alpine knotweed | 1 |
| PIPO dt | 3 | ALVIS-R dt - Sitka alder | 1 | POSE dt – Sandberg's bluegrass | 1 |
| PSME-PICO dtp | 8 | CAAQ dt – water sedge | 1 | | |
| PSME-PIPO dtp | 2 | PEGL5 dt – globe penstemon | 1 | **Sparse Vegetation (5)** | |
| PSME-PSME dtp | 54 | SACO2 dt – undergreen willow | 1 | BARREN - Barren | 2 |
| | | | | SP HERB – Sparse Herbaceous | 1 |
| | | | | SP VEG – Sparse Vegetation | 2 |

**Environment:** The SA map unit ranges in elevation from 4900 to 9300 feet, but is mostly between 6500 and 7900 feet. This map unit ranges from 27 to 69 inches mean annual precipitation, but is predominantly between 42 and 61 inches. These values are all similar to the range of the ABLA-ABLA dtp across the Forest.

**Distribution Map:** Extent of the SAmix map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 92 percent of the Subalpine Fir map unit is climax subalpine fir, 3 percent is seral to grand fir, and 5 percent is seral to Douglas-fir. The relationship of dominance types to PNV Series is shown below.

The ABLA-ABLA dtp is always climax subalpine fir on the Boise NF. Where the PICO dt, PSME-PSME dtp, ABLA-PSME dtp, and the PIEN dt are seral to subalpine fir, they are successionally related to the ABLA-ABLA dtp. Forest dominance types seral to Douglas-fir or grand fir are dissimilar to the ABLA-ABLA dtp (indicated by red shading in the table below). The degree of relationship to the ABLA-ABLA dtp is shown in the adjacent table (plots not classified to PNV Series or dominance type are not included).

Based on the available systematic inventory data, 92 percent of this map unit consists of the ABLA-ABLA dtp and successionally related dominance types and phases. Dissimilar dominance types make 8% of the map unit.

**Successional Relationships within the SA Map Unit: Number of Plots by Dominance Type and PNV Series (from Systematic Inventory)**

| Dominance Type or Phase | PNV Series | | |
|---|---|---|---|
| | PSME | ABGR | ABLA |
| ABGR-ABGR dtp | --- | 1 | --- |
| PSME-PSME dtp | 2 | --- | 8 |
| PSME-PICO dtp | --- | --- | 1 |
| PIEN dt | | --- | 3 |
| PICO dt | --- | --- | 2 |
| ABLA-PSME dtp | | | 3 |
| ABLA-ABLA dtp | | | 14 |
| Sparse Vegetation | --- | --- | 1 |
| PIAL dt | | | 1 |

| | |
|---|---|
| ABLA-ABLA dtp | 38% |
| Related | 54% |
| Similar | --- |
| Dissimilar | 8% |
| Not observed | |
| Not Possible | |


Western larch dominance type (LAOC dt).


Western larch dominance type (LAOC dt).

**Map Unit Concept:** The Western Larch map unit consists mostly of stands belonging to the Western Larch dominance type and other areas with at least 10 percent cover of western larch.

This map unit is delineated based in part on local expert knowledge. Due to its very small extent, no systematic inventory plots occur within it.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 1,456 | 0.4% |
| Emmett RD | 137 | <0.1% |
| Idaho City RD | ----- | ----- |
| Lowman RD | ----- | ----- |
| Mountain Home RD | ----- | ----- |
| Boise NF | 1,593 | 0.1% |

**Vegetation Map Group:** Conifer (C) – Trees total ≥ 10% absolute cover and the most abundant tree species is a conifer.

**Sample Size:**

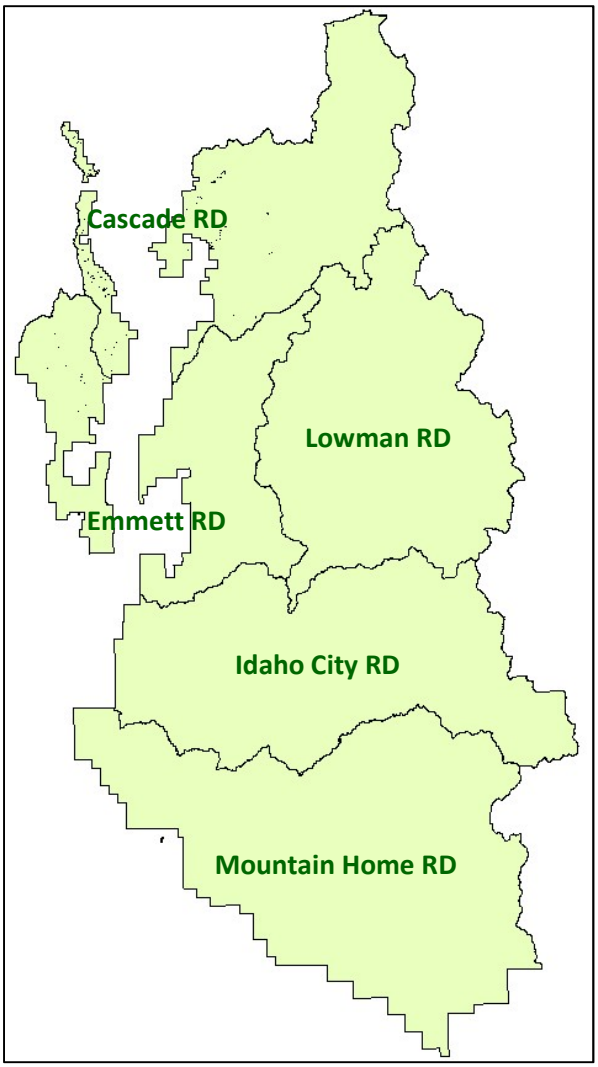
| | | | | | |
|---|---|---|---|---|---|
| 5 Plots | FIA: 0 | B-Grid: 0 | Ref: 0 | AA: 5 | Legacy: 0 |
| 5 Observations | | | | | |

**Map Unit Composition:** No spatially balanced estimate of composition is available for this map unit. Only 5 plots and 5 observations occur in this map, so only a rough estimate of its composition is possible.

**Environment:** Based on 10 observations, this map unit ranges from 5300 to 6200 feet in elevation and 36 to 51 inches mean annual precipitation.

| Map Unit Composition from All Plots and Observations (n=10) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| LAOC dt | western larch | 30% |
| ABGR-ABGR dtp | grand fir | 30% |
| PIEN dt | Engelmann's spruce | 20% |
| ABLA-ABLA dtp | subalpine fir | 10% |
| PSME-PSME dtp | Douglas-fir | 10% |

**Distribution Map:** Extent of the WL map unit on the Boise National Forest.




**Successional Relationships:** Western larch occurs predominantly at the cool, wet end of the Grand Fir Series, and occasionally in the Subalpine Fir Series. Within this map unit, all the forested areas appear to be predominantly seral to grand fir, and seral to subalpine above 600 feet elevation.


Aspen dominance type (POTR5-POTR5 dtp).


Aspen-Conifer dominance type phase (POTR5-Conifer dtp) with Douglas-fir.

**Map Unit Concept:** The Aspen map unit consists mostly of stands belonging to the POTR5-POTR5 dtp and the POTR5-Conifer dtp. It also includes similar and ecologically-related dominance types and phases, and small areas of ecologically dissimilar dominance types.

Although this map unit was intended to delineate aspen-dominated forests, it should be treated as a mosaic of aspen forests, conifer forests, and early-seral shrublands.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 2,602 | 0.6% |
| Emmett RD | 5,641 | 1.6% |
| Idaho City RD | 7,290 | 1.3% |
| Lowman RD | 3,581 | 0.8% |
| Mountain Home RD | 11,003 | 1.5% |
| Boise NF | 30,117 | 1.2% |

**Vegetation Map Group:** Deciduous Forest (D) – Trees total ≥ 10% absolute cover and the most abundant tree species is aspen.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 18 Plots | FIA: 0 | B-Grid: 4 | Ref: 19 | AA: 13 | Legacy: 5 |
| 46 Observations | | | | | |

**Map Unit Composition:** Only one systematic inventory plot occurs in this map unit, so its composition is based on all field plots, even though they do not comprise a spatially balanced sample.

There are 87 geo-referenced observations and plots in the Aspen map unit. These points document the occurrence of 17 dominance types and phases in this map unit. All 17 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

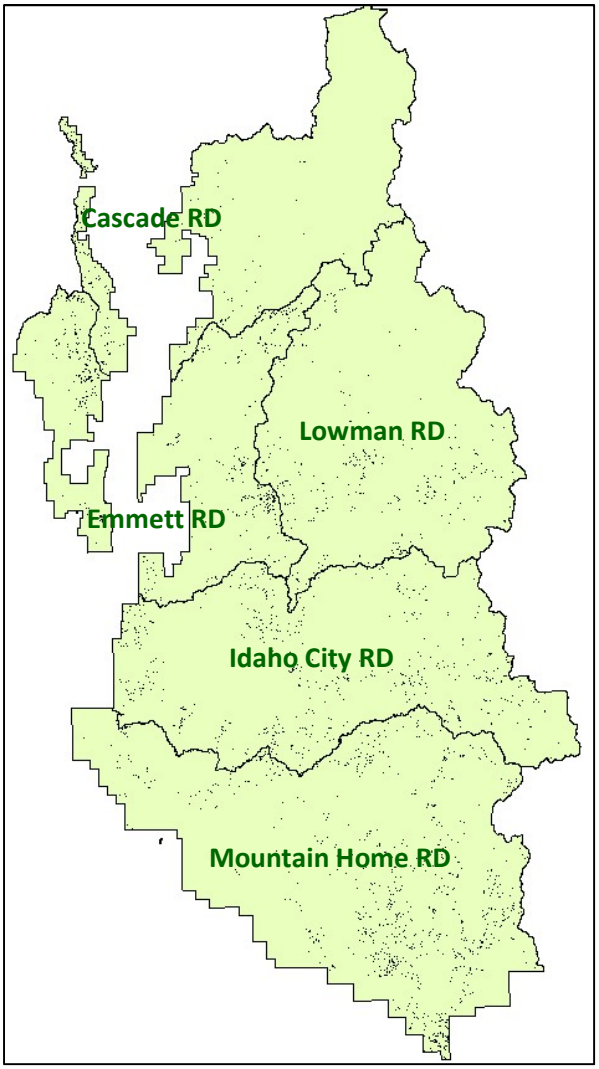
| Map Unit Composition from Accuracy Assessment and Inventory Data (n=22) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| POTR5-POTR5 dtp | aspen | 14% |
| PSME-PSME dtp | Douglas-fir | 14% |
| PIPO dt | ponderosa pione | 14% |
| ABGR-ABGR dtp | grand fir | 4% |
| PIEN dt | Engelmann's spruce | 4% |
| Early-Seral Shrublands | | 32% |
| Early Seral Herblands | | 14% |
| Riparian Communities | | 4% |

**Documented Dominance Types in the Aspen Map Unit.**

| Forests (70) | | Shrublands (11) | | Herblands (4) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 2 | ARTRV dt – mtn. big sagebrush | 1 | PEAT3 dt - | 1 |
| ABGR-PIPO dtp | 1 | CEVE dt – snowbrush ceanothus | 4 | THIN6 dt - | 1 |
| ABLA-ABLA dtp | 2 | PHMA5 dt – mallow ninebark | 1 | Unidentified Forbland | 1 |
| ABLA-PSME dtp | 1 | PREM dt – bitter cherry | 4 | Unidentified Grassland | 1 |
| PIEN dt | 3 | Unidentified Shrublands | 1 | | |
| PIPO dt | 5 | | | **Riparian (2)** | |
| PSME-PIPO dtp | 4 | | | POGR9 dt - | 1 |
| PSME-PSME dtp | 10 | | | Unidentified Herbland | 1 |
| POTR5-Conifer dtp | 12 | | | | |
| POTR5-POTR5 dtp | 30 | | | | |
| | | | | **Sparse Vegetation (0)** | |
| | | | | | |

**Environment:** The AS map unit ranges in elevation from 3600 to 7300 feet, but is mostly between 5200 and 6700 feet. This map unit ranges from 17 to 52 inches mean annual precipitation, but is predominantly between 23 and 48 inches. These values are similar to the range of the POTR5-POTR5 and POTR5-Conifer dtp's across the Forest.

**Distribution Map:** Extent of the AS map unit on the Boise National Forest.



**Successional Relationships:** Based on systematic inventory data, 32 percent of the Aspen map unit is seral to Douglas-fir, 23 percent is seral to grand fir, and 18 percent is seral to subalpine fir.

The POTR5-POTR5 dtp is seral to subalpine fir or stable aspen in this map unit. Other dominance types or phases seral to aspen are ecologically related to the POTR5-POTR5 dtp. Those seral to subalpine fir are ecologically similar to the POTR5-POTR5 dtp. Dominance types or phases not seral to those series are ecologically dissimilar. The degree of relationship to the POTR5-POTR5 dtp is shown in the table below (plots not classified to PNV Series or dominance type are not included):

**Successional Relationships within the AS Map Unit:**
**Number of Plots by Dominance Type and PNV Series (from Field Plots)**

| Dominance Type or Phase | PNV Series | | | | | | |
|---|---|---|---|---|---|---|---|
| | Herbland | Shrubland | PSME | ABGR | POTR5 | ABLA | Riparian |
| Herblands | 1 | --- | 1 | 1 | --- | --- | |
| Shrublands | | 2 | 3 | --- | --- | 2 | |
| PIPO dt | | | 1 | 2 | | --- | |
| PSME-PSME dt | | | 2 | --- | | 1 | |
| ABGR-ABGR dtp | | | | 1 | | | |
| PIEN dt | | | | 1 | | --- | |
| POTR5-POTR5 | | | --- | --- | 2 | 1 | |
| Riparian | | | | | | | 1 |

| | |
|---|---|
| Aspen-dominated | 14% |
| Related | --- |
| Similar | 14% |
| Dissimilar | 72% |
| --- Not observed | |
| Not Possible | |

Based on the available plot data, 28 percent of this map unit consists of the POTR5-POTR5 and POTR5-Conifer dtp's and ecologically similar dominance types and phases. Dissimilar riparian dominance types make up 72 percent.

Bitterbrush dominance type (PUTR2 dt) with bulbous bluegrass understory.


Bitterbrush dominance type (PUTR2 dt) with bluebunch wheatgrass and rush skeletonweed.

**Map Unit Concept:** The Bitterbrush map unit consists mostly of stands dominated by antelope bitterbrush and successionally-related shrubland and grassland dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to map sagebrush and related shrublands, it should be treated as a mosaic of shrublands and grasslands, with small patches of conifer forests and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | ----- | ---- |
| Emmett RD | ----- | ---- |
| Idaho City RD | 4,919 | 0.9% |
| Lowman RD | ----- | ---- |
| Mountain Home RD | 44,700 | 6.1% |
| Boise NF | 49,618 | 2.0% |

**Vegetation Map Group:** Shrubland (S) – Trees total < 10% absolute cover and shrubs total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 61 Plots | FIA: 2 | B-Grid: 0 | Ref: 28 | AA: 13 | Legacy: 18 |
| 47 Observations | | | | | |

**Map Unit Composition:** There are only 2 FIA plots available in this map unit, and no B-Grid plots. Recent vegetation classification projects provided 18 widely distributed plots in this map unit for use in accuracy assessment. VCMQ field crews collected 13 additional plots. Composition of this map unit is based on the stratified sample collected for the accuracy assessment plus the FIA plots. Even though it is not a spatially balanced sample, it is the best available data.

**Map Unit Composition from FIA and Accuracy Assessment Data (n=33)**

| Dominance Type or Phase | | Percent |
|---|---|---|
| PUTR2 dt | antelope bitterbrush | 28% |
| ARTRV dt | mountain big sagebrush | 18% |
| Other Shrublands | | 9% |
| PSSP6 dt | bluebunch wheatgrass | 9% |
| CHJU dt | rush skeletonweed | 6% |
| Other Herblands | | 6% |
| PIPO dt | ponderosa pine | 6% |
| Riparian Communities | | 15% |

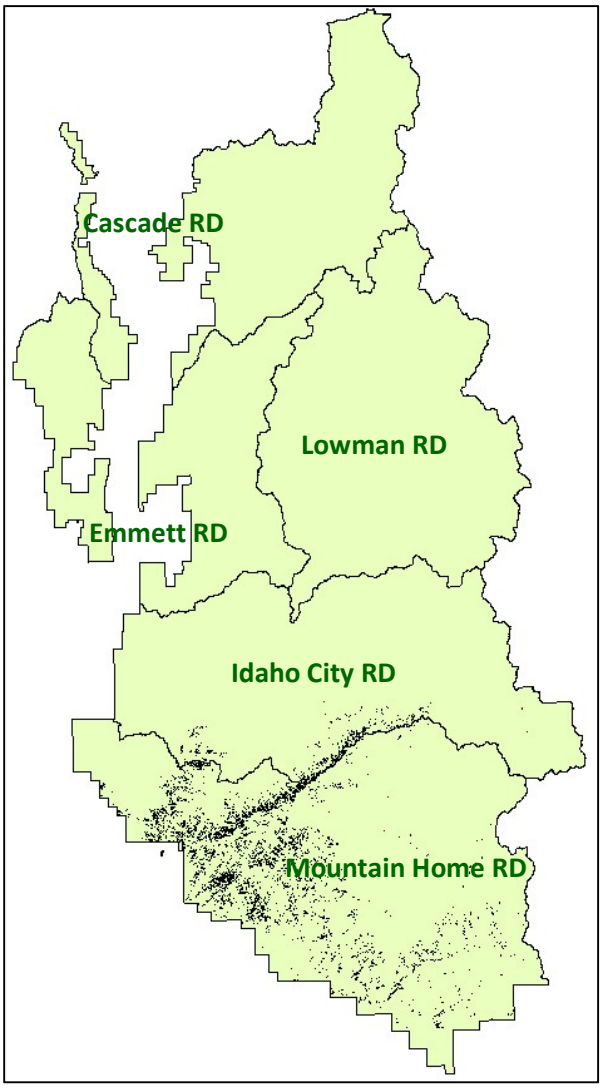
There are 08 geo-referenced observations and plots in the Bitterbrush map unit. These points document the occurrence of 23 dominance types and phases in this map unit. All 23 are listed above with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

**Documented Dominance Types in the Bitterbrush Map Unit.**

| Forests (5) | | Shrublands (69) | | Herblands (28) | |
|---|---|---|---|---|---|
| PIPO dt | 4 | ARTRV dt – mtn. big sagebrush | 13 | BASA3 dt -arrowleaf balsamroot | 5 |
| PSME-PSME dtp | 1 | PHMA5 dt – mallow ninebark | 1 | BRTE dt – cheatgrass | 7 |
| | | PREM dt – bitter cherry | 2 | CAGE2 dt – elk sedge | 1 |
| | | PUTR2 dt – bitterbrush | 47 | CHJU dt – rush skeletonweed | 3 |
| | | SPBE2 dt – white spirea | 1 | EPBR3 dt – annual willowweed | 1 |
| **Riparian (5)** | | SYOR2 dt – mtn. snowberry | 1 | MEBU dt - oniongrass | 1 |
| BEOC2 dt – water birch | 2 | Unidentified Shrublands | 4 | POBU dt – bulbous bluegrass | 1 |
| ELPA3 dt – common spikerush | 1 | | | POSE dt – Sandberg's bluegrass | 1 |
| SABO2 dt – Booth's willow | 1 | | | PSSP6 dt – bluebunch wheatgr. | 5 |
| SALU2 dt – yellow willow | 1 | | | WYAM dt – mule-ears | 1 |
| | | | | Unidentified Grasslands | 2 |
| **Sparse Vegetation (1)** | | | | | |
| SP VEG – Sparse Vegetation | 1 | | | | |

**Environment:** The MB map unit ranges in elevation from 3100 to 5700 feet, but is mostly between 3400 and 4900 feet. This map unit ranges from 18 to 36 inches mean annual precipitation, but is predominantly between 20 and 27 inches.

**Distribution Map:** Extent of the BB map unit on the Boise National Forest.



**Successional Relationships:** The successional dynamics of many dominance types in this map unit have not been studied in detail, but some general trends can be described. General seral relationships within this map unit are shown in the table below. The most common relations are labeled as MAJOR, less common relationships are labeled as Minor, and dashed indicate scenarios that do not occur in this map unit.

| Successional Trends in the Bitterbrush Map Unit | | | | | | |
|---|---|---|---|---|---|---|
| | **PNV Types** | | | | | |
| **Existing Vegetation Types** | Grasslands | Bitterbrush | Sagebrush | Mountain Shrublands | Conifer Forests | Riparian |
| Grasslands | Minor | MAJOR | Minor | Minor | Minor | |
| Bitterbrush | | MAJOR | MAJOR | --- | Minor | |
| Mtn. big sagebrush | | --- | MAJOR | --- | Minor | |
| Mountain Shrublands | | | --- | Minor | --- | |
| Forest Shrublands | | | | | Minor | |
| Conifer Forests | | | | | Minor | |
| Riparian | | | | | | Minor |

| | |
|---|---|
| Bitterbrush | ~45% |
| Related | ~30% |
| Similar | ~10% |
| Dissimilar | ~15% |
| --- Not Observed | |
| Not Possible | |

This map unit is roughly estimated to be about 85 percent big sagebrush, successionally related, and ecologically similar dominance types, and about 15 percent ecologically dissimilar vegetation.

Rocky Mountain maple dominance type (ACGL dt).


Snowbrush ceanothus dominance type (CEVE dt).

**Map Unit Concept:** The Forest Shrubland map unit consists mostly of early-seral stands dominated by forest understory shrub species, and ecologically-related forest dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to shrublands seral to forest, it should be treated as a mosaic of shrublands and open forests, with small patches of grasslands and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 5,236 | 1.3% |
| Emmett RD | 17,458 | 4.9% |
| Idaho City RD | 44,029 | 7.8% |
| Lowman RD | 27,156 | 5.8% |
| Mountain Home RD | 68,537 | 9.3% |
| Boise NF | 162,416 | 6.4% |

**Vegetation Map Group:** Shrubland (S) – Trees total < 10% absolute cover and shrubs total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 148 Plots | FIA: 14 | B-Grid: 10 | Ref: 93 | AA: 4 | Legacy: 27 |
| 171 Observations | | | | | |

**Map Unit Composition:** Composition of this map unit is estimated from 24 systematic inventory plots. Eight of these are dominated by an unidentified shrub. These are assumed to be forest shrub species because all of the plots are seral to Douglas-fir or subalpine fir.

This map unit is about 62 percent forest shrubland, 12 percent mountain shrubland, and 18 percent forest dominance types.

There are 297 geo-referenced, classified observations and plots in the Forest Shrublands map unit. These points document the occurrence of 45 dominance types and phases in this map unit. All 45 are listed above with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

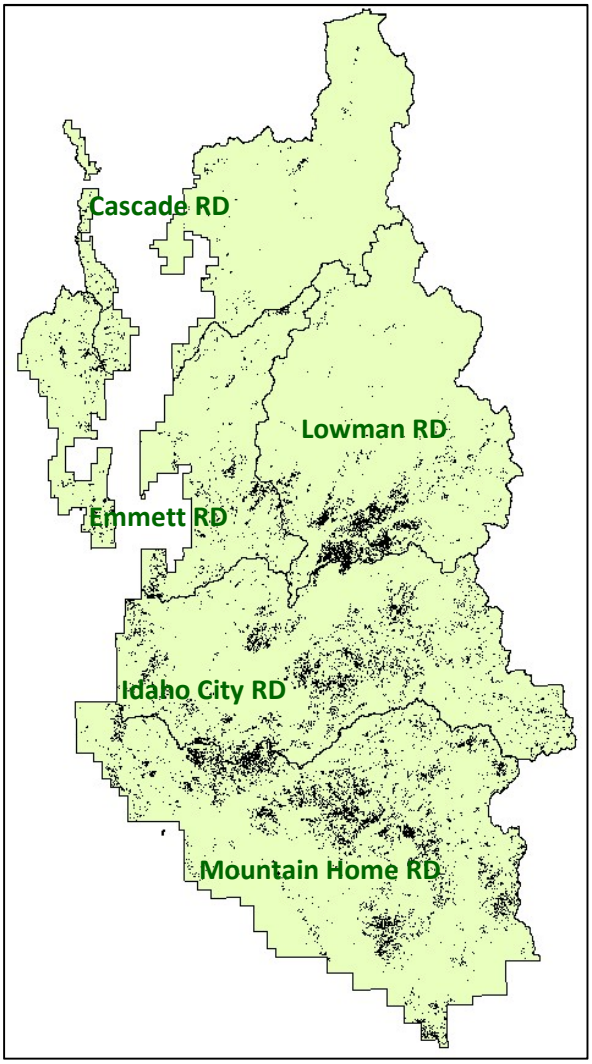
| Map Unit Composition from Systematic Inventory Data (n=24) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| CEVE dt | snowbrush ceanothus | 17% |
| PHMA5 dt | mallow ninebark | 8% |
| ACGL dt | Rocky Mountain maple | 4% |
| Unidentified Forest Shrublands | | 33% |
| Mountain Shrublands | | 12% |
| Conifer Forests | | 18% |
| Herbaceous dt's | | 4% |
| PUTR2 dt | antelope bitterbrush | 4% |

**Documented Dominance Types in the Forest Shrubland Map Unit.**

| Forests (76) | | Shrublands (202) | | Herblands (15) | |
|---|---|---|---|---|---|
| ABGR-ABGR dtp | 2 | ACGL dt – Rocky Mountain maple | 19 | BASA3 dt – arrowleaf balsamroot | 5 |
| ABGR-PIPO dtp | 1 | AMAL2 dt – serviceberry | 4 | CAGE2 dt – elk sedge | 1 |
| ABLA-ABLA dtp | 4 | ARARA dt – low sagebrush | 1 | CAHO5 dt – Hood's sedge | 1 |
| ABLA-PSME dtp | 1 | ARTRT dt – basin big sagebrush | 1 | CHUM dt - pipsissewa | 1 |
| LAOC dt | 1 | ARTRV dt – mtn. big sagebrush | 12 | ERFL4 dt – alpine golden buckwheat | 1 |
| PICO dt | 4 | CESA dt – redstem ceanothus | 1 | ERUM dt – sulphur buckwheat | 1 |
| PIPO dt | 24 | CEVE dt – snowbrush ceanothus | 81 | LUAR3 dt – silvery lupine | 1 |
| PSME-PICO dtp | 1 | ERNA10 dt – rubber rabbitbrush | 1 | LUSE4 dt – silky lupine | 2 |
| PSME-PIPO dtp | 3 | MEFE dt – rusty menziesia | 1 | PSSP6 dt – bluebunch wheatgrass | 1 |
| PSME-PSME dtp | 22 | PHMA5 dt – mallow ninebark | 15 | THIN6 dt – intermediate wheatgrass | 1 |
| POTR5-Conifer dtp | 1 | PREM dt – bitter cherry | 26 | | |
| POTR5-POTR5 dtp | 12 | PRVI dt – chokecherry | 9 | | |
| | | PUTR2 dt – antelope bitterbrush | 3 | | |
| | | RIVI3 dt – sticky currant | 2 | **Sparse Vegetation (1)** | |
| **Riparian (3)** | | ROWO dt – Wood's rose | 1 | BARREN | 1 |
| ALINT dt – gray alder | 1 | SASC dt – Scouler's willow | 10 | | |
| LECI4 dt – basin wildrye | 1 | SPBE2 dt – white spirea | 5 | | |
| SALE dt – Lemmon's willow | 1 | SYOR2 dt – mountain snowberry | 9 | | |
| | | VAME dt – big huckleberry | 1 | | |

**Environment:** The FS map unit ranges in elevation from 3300 to 8300 feet, but is mostly between 4700 and 6900 feet. This map unit ranges from 19 to 63 inches mean annual precipitation, but is predominantly between 27 and 44 inches.

**Distribution Map:** Extent of the FS map unit on the Boise National Forest.



**Successional Relationships:** **S**eral relationships within this map unit are shown in the table below, based on systematic inventory data. In this map unit, forest shrubland dominance types are seral to Douglas-fir and subalpine fir. These conifer forests are successionally related to forest shrublands. Mountain shrublands are ecologically similar to forest shrublands. The Bitterbrush dt is ecologically dissimilar.

**Successional Trends in the Forest Shrubland Map Unit**

| | **PNV Types** | | | |
|---|---|---|---|---|
| **Existing Vegetation Types** | Bitterbrush | Mountain Shrublands | PSME Series | ABLA Series |
| Bitterbrush | 1 | | | |
| Grassland | --- | --- | --- | 1 |
| Mountain Shrublands | | 3 | | |
| Forest Shrublands | | | 13 | 2 |
| Conifer Forests | | | 3 | 1 |

| | |
|---|---|
| Forest Shrublands | 62% |
| Related | 17% |
| Similar | 17% |
| Dissimilar | 4% |
| --- Not Observed | |
| Not Possible | |

This map unit is estimated to be about 96 percent forest shrublands, successionally related, and ecologically similar dominance types, and about 4 percent ecologically dissimilar vegetation.


Mountain big sagebrush dominance type (ARTRV dt).


Mountain big sagebrush dominance type (ARTRV dt).

**Map Unit Concept:** The Mountain Big Sagebrush map unit consists mostly of stands dominated by all subspecies of big sagebrush and successionally-related shrubland and grassland dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to map sagebrush and related shrublands, it should be treated as a mosaic of shrublands and grasslands, with small patches of conifer forests and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 861 | 0.2% |
| Emmett RD | 4,123 | 1.2% |
| Idaho City RD | 17,662 | 3.1% |
| Lowman RD | 6,839 | 1.5% |
| Mountain Home RD | 219,391 | 29.9% |
| Boise NF | 248,876 | 9.9% |

**Vegetation Map Group:** Shrubland (S) – Trees total < 10% absolute cover and shrubs total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 227 Plots | FIA: 15 | B-Grid: 6 | Ref: 90 | AA: 9 | Legacy: 107 |
| 194 Observations | | | | | |

**Map Unit Composition:** There are 15 FIA plots available in this map unit. B-Grid non-forested plots have not been sampled yet, so they do not fairly depict the composition of this map unit. Recent vegetation classification projects provided 107 widely distributed plots in this map unit for use in accuracy assessment. Nine additional plots were collected by VCMQ field crews. Composition of this map unit is based on the stratified sample collected for the accuracy assessment plus the FIA plots. Even though it is not a spatially balanced sample, it gives a composition life form very similar to the 15 FIA plots.

There are 382 geo-referenced and classified observations and plots in the Mountain Big Sagebrush map unit. These points document the occurrence of 52 dominance types and phases in this map unit. All 52 are listed below with the number of observations.

| Map Unit Composition from FIA and Accuracy Assessment Data (n=131) | |
|---|---|
| **Dominance Type or Phase** | **Percent** |
| ARTRV dt mountain big sagebrush | 41% |
| Shrubs seral to ARTRV | 6% |
| Mountain Shrublands | 10% |
| Forest Shrublands | 5% |
| PUTR2 dt antelope bitterbrush | 4% |
| Dwarf Sagebrush dt's | 3% |
| PSSP6 dt bluebunch wheatgass | 6% |
| FEID dt Idaho fescue | 3% |
| Other Herblands | 18% |
| Sparse Vegetation | 2% |
| Riparian Communities | 2% |

**Documented Dominance Types in the Mountain Big Sagebrush Map Unit.**

| Forests (25) | | Shrublands (280) | | Herblands (69) | |
|---|---|---|---|---|---|
| ABLA-ABLA dtp | 2 | ACGL dt – Rocky Mountain maple | 2 | ACTH7 dt – Thurber needlegrass | 1 |
| PIPO dt | 8 | AMAL2 dt – serviceberry | 1 | BASA3 dt -arrowleaf balsamroot | 12 |
| PSME-PIPO dtp | 2 | ARARA dt – low sagebrush | 3 | BRTE dt – cheatgrass | 7 |
| PSME-PSME dtp | 9 | ARART dt – cleftleaf sagebrush | 1 | CAGE2 dt – elk sedge | 2 |
| POTR5-POTR5 dtp | 4 | ARSP8 dt – spiked big sagebrush | 1 | CHJU dt – rush skeletonweed | 1 |
| | | ARTRT dt – basin big sagebrush | 1 | ELEL5 dt – squirreltail | 1 |
| | | ARTRV dt – mtn. big sagebrush | 207 | EPBR3 dt – annual willowweed | 1 |
| **Riparian (5)** | | ARTRW8 dt – Wyo. big sagebrush | 1 | ERHE2 dt – buckwheat | 2 |
| ARCAV2 dt – mtn. silver sage | 1 | CESA dt – redstem ceanothus | 1 | FEID dt – Idaho fescue | 5 |
| PHLE4 dt – Lewis' mockorange | 1 | CEVE dt – snowbrush | 8 | GADI2 dt - groundsmoke | 1 |
| POBAT dt – black cottonwood | 1 | CHVI8 dt –green rabbitbrush | 2 | LUAR3 dt – silvery lupine | 2 |
| VECA2 dt – Calif. false hellebore | 1 | ERNA10 dt –rubber rabbitbrush | 3 | LUSE4 dt – silky lupine | 1 |
| WYHE2 – sunflower mule-ears | 1 | ERSU13 dt – goldenbush | 2 | MAGR3 dt – grassy tarweed | 1 |
| | | PHMA5 dt – mallow ninebark | 1 | POBU dt – bulbous bluegrass | 5 |
| | | PREM dt – bitter cherry | 9 | PODO4 dt – Douglas' knotweed | 1 |
| **Sparse Vegetation (3)** | | PRVI dt – chokecherry | 8 | POPH dt – alpine knotweed | 1 |
| BARREN – Barren | 2 | PUTR2 dt – bitterbrush | 21 | POSE dt – Sandberg's bluegrass | 2 |
| SP VEG - Sparse Vegetation | 1 | RICE dt – wax currant | 1 | PSSP6 dt – bluebunch wheatgrass | 22 |
| | | SPBE2 dt – white spirea | 1 | THIN6 dt – intermediate wheat. | 1 |
| | | SYAL dt – common snowberry | 1 | | |
| | | SYOR2 dt – mtn. snowberry | 5 | | |

**Environment:** The MB map unit ranges in elevation from 3200 to 8600 feet, but is mostly between 3800 and 6700 feet. This map unit ranges from 18 to 50 inches mean annual precipitation, but is predominantly between 21 and 35 inches.

**Successional Relationships:** The successional dynamics of many dominance types in this map unit have not been studied in detail, but some general trends can be described. General seral relationships within this map unit are shown in the table below. The most common relations are labeled as MAJOR, less common relationships are labeled as Minor, and dashed indicate scenarios that do not occur in this map unit.

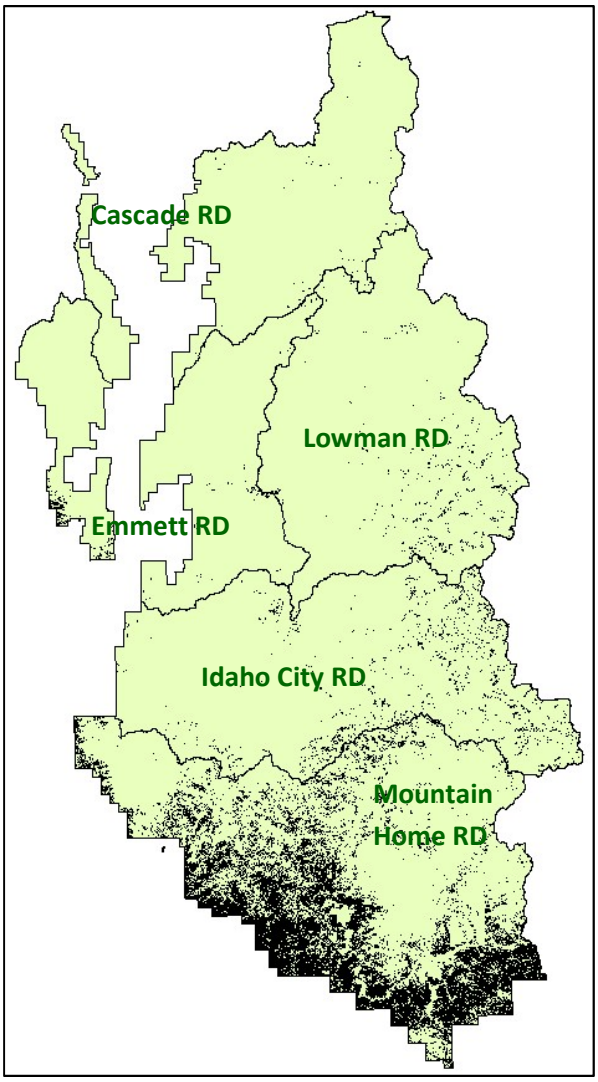
**Successional Trends in the Mountain Big Sagebrush Map Unit**

| | PNV Types | | | | |
|---|---|---|---|---|---|
| **Existing Vegetation Types** | Grasslands | Sagebrush | Mountain Shrublands | Conifer Forests | Riparian |
| Grasslands | Minor | MAJOR | MAJOR | Minor | |
| Mtn. big sagebrush | | MAJOR | Minor | --- | |
| Mountain Shrublands | | Minor | MAJOR | Minor | |
| Forest Shrublands | | | | Minor | |
| Riparian | | | | | Minor |

| | |
|---|---|
| Sagebrush | ~50% |
| Related | ~20% |
| Similar | ~20% |
| Dissimilar | ~10% |
| --- Not Observed | |
| Not Possible | |

This map unit is roughly estimated to be about 90 percent big sagebrush, successionally related, and ecologically similar dominance types, and about 10 percent ecologically dissimilar vegetation.

**Distribution Map:** Extent of the MB map unit on the Boise National Forest.



Bitter cherry dominance type (PREM dt).


Common chokecherry dominance type (PRVI dt).

**Map Unit Concept:** The Mountain Shrubland map unit consists mostly of stands dominated by mountain shrub species, and ecologically similar shrubland and herbland dominance types. It also includes small areas of ecologically dissimilar forest and riparian dominance types and phases.

Although this map unit was intended to mountain shrublands, it should be treated as a mosaic of shrublands and grasslands, with small patches of forest and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 389 | 0.1% |
| Emmett RD | 11,979 | 3.4% |
| Idaho City RD | 15,039 | 2.6% |
| Lowman RD | 10,103 | 2.2% |
| Mountain Home RD | 24,047 | 3.3% |
| Boise NF | 61,557 | 2.4% |

**Vegetation Map Group:** Shrubland (S) – Trees total < 10% absolute cover and shrubs total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 95 Plots | FIA: 5 | B-Grid: 7 | Ref: 39 | AA: 3 | Legacy: 41 |
| 80 Observations | | | | | |

**Map Unit Composition:** The systematic inventory plots currently available on the Boise NF are in mostly forested vegetation; these would not give a reasonable estimate of this map unit's composition. There are only 12 systematic inventory plots in this map unit, and 8 of those are unclassified. Including legacy data, 44 accuracy assessment plots were collected in this map unit, so composition of this map unit is based on those plus the systematic inventory plots. This is not a spatially balanced sample, but it is the best available data.

This map unit is about 60 percent shrubland, 25 percent herbaceous, and 10 percent forest dominance types.

There are 175 geo-referenced observations and plots in the Mountain Shrublands map unit that are identified at

| Map Unit Composition from Accuracy Assessment and Inventory Plots (n=56) | |
|---|---|
| **Dominance Type or Phase** | **Percent** |
| PREM dt bitter cherry | 12% |
| SYOR2 dt mountain snowberry | 4% |
| PRVI dt common chokecherry | 4% |
| Other mountain shrublands | 4% |
| Forest Shrublands | 16% |
| ARTRV dt mountain big sagebrush | 14% |
| Other shrublands | 7% |
| Herbland dt's | 25% |
| Forest dt's | 9% |
| Riparian dt's | 5% |

least to the map unit. These points document the occurrence of 35 dominance types and phases in this map unit. All 35 are listed below with the number of observations. Most of the riparian dominance types are represented in areas smaller than the minimum map delineation size of 5 acres.

**Documented Dominance Types in the Forest Shrubland Map Unit.**

| Forests and Woodlands (22) | | Shrublands (118) | | Herblands (30) | |
|---|---|---|---|---|---|
| PIPO dt | 5 | ACGL dt – Rocky Mtn. maple | 4 | BASA3 dt -arrowleaf balsamroot | 5 |
| PSME-PIPO dtp | 1 | AMAL2 dt – serviceberry | 3 | BRTE dt – cheatgrass | 2 |
| PSME-PSME dtp | 9 | ARARA dt – low sagebrush | 1 | ERHE2 dt – parsnipflower buckwheat | 2 |
| POTR5-Conifer dtp | 1 | ARTRV dt – mtn. big sagebrush | 14 | FEID dt – Idaho fescue | 2 |
| POTR5-POTR5 dtp | 5 | CEVE dt – snowbrush ceanothus | 9 | HEUN dt – oneflower helianthella | 2 |
| CELE3 dt – mountain mahogany | 1 | ERNA10 – rubber rabbitbrush | 2 | LOMAT dt – biscuitroot | 1 |
| | | MARE11 dt – creeping barberry | 2 | POBU dt – bulbous bluegrass | 1 |
| | | PHMA5 dt – mallow ninebark | 4 | PSSP6 dt – bluebunch wheatgrass | 7 |
| | | PREM dt – bitter cherry | 29 | THIN6 dt – intermediate wheatgrass | 2 |
| | | PRVI dt – chokecherry | 14 | Unidentified Herblands | 6 |
| | | PUTR2 dt – bitterbrush | 13 | | |
| Sparse Vegetation (2) | | ROWO dt – Wood's rose | 1 | **Riparian (3)** | |
| BARREN | 1 | SARA2 dt – red elderberry | 1 | ALINT dt – gray alder | 1 |
| SP VEG – Sparse Vegetation | 1 | SPBE2 dt – white spirea | 1 | LECI4 dt – basin wildrye | 1 |
| | | SYOR2 dt – mtn. snowberry | 7 | RHAL dt – alderleaf buckthorn | 1 |
| | | Unidentified Shrublands | 13 | | |

**Environment:** The FS map unit ranges in elevation from 3200 to 7200 feet, but is mostly between 3600 and 6300 feet. This map unit ranges from 19 to 50 inches mean annual precipitation, but is predominantly between 22 and 38 inches.

**Successional Relationships:** Seral relationships within this map unit are shown in the table below. Some mountain shrub species have very wide ecological amplitudes. About 60 percent of the mountain shrub plots in this map unit appear to be climax mountain shrub communities. The other 40 percent are seral to mountain big sagebrush or conifer forests. Forest shrubland dominance types are seral to conifer forests, and occasionally to mountain shrublands in this map unit. Some mountain big sagebrush, bitterbrush, and forest shrublands are successionally related to mountain

**Successional Trends in the Mountain Shrubland Map Unit**
**Number of Field Plots**

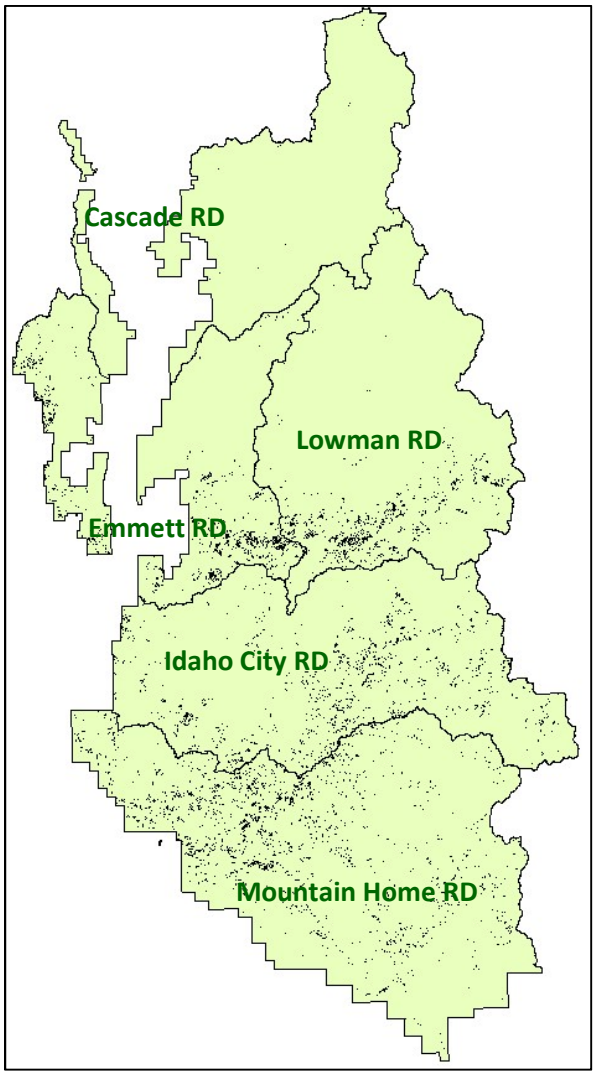
| | PNV Types | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Existing Vegetation Types** | Grass-lands | Sagebrush Bitterbrush | Mountain Shrublands | PIPO Series | PSME Series | ABGR Series | POTR5 Series | ABLA Series | Riparian |
| Grasslands | 5 | 7 | --- | --- | 1 | --- | --- | --- | |
| ARTRV / PUTR2 | | 15 | 2 | --- | --- | --- | --- | --- | |
| Mountain Shrubland | | 5 | **18** | 1 | 4 | --- | --- | 1 | |
| Forest Shrubland | | | 3 | 1 | 7 | --- | --- | 1 | |
| Conifer Forests | | | | 1 | 2 | | | 1 | |
| Aspen Forests | | | | --- | --- | 1 | 3 | --- | |
| Riparian | | | | | | | | | 3 |

| | |
|---|---|
| Mtn. Shrublands | 35% |
| Related | 24% |
| Similar | 20% |
| Dissimilar | 21% |
| --- Not Observed | |
| Not Possible | |

shrublands in this map unit. Forest shrublands seral to conifer forests are ecologically similar to mountain shrublands. Forests and riparian dominance types are ecologically dissimilar.

This map unit is estimated to be about 79 percent big sagebrush and ecologically similar dominance types, and about 21 percent ecologically dissimilar vegetation.

**Distribution Map:** Extent of the MS map unit on the Boise National Forest.



Arrowleaf balsamroot dominance type (BASA3).


Silky lupine dominance type (LUSE4 dt).

**Map Unit Concept:** The Forbland map unit consists mostly of stands dominated by upland forbs and ecologically-related shrubland and grassland dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to forb-dominated vegetation, it should be treated as a mosaic of forblands, grasslands, and shrublands. It also includes small patches of conifer forests and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 1,809 | 0.2% |
| Emmett RD | 1,652 | 0.5% |
| Idaho City RD | 3,793 | 0.7% |
| Lowman RD | 1,273 | 0.3% |
| Mountain Home RD | 4,885 | 0.7% |
| Boise NF | 13,411 | 0.5% |

**Vegetation Map Group:** Herbland (H) – Trees total < 10% absolute cover, shrubs total < 10% absolute cover, and herbaceous plants total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 40 Plots | FIA: 1 | B-Grid: 1 | Ref: 13 | AA: 4 | Legacy: 21 |
| 15 Observations | | | | | |

**Map Unit Composition:** The systematic inventory plots currently available on the Payette NF are in mostly forested vegetation; these would not give a reasonable estimate of this map unit's composition. Only two systematic inventory plots were collected in this map unit, so composition of this map unit is based on those plus the accuracy assessment plots (including legacy data). This is not a spatially balanced sample, but it is the best available data.

This map unit is roughly 41 percent forbland, 41 percent shrubland, and 14 percent grassland dominance types.

| Map Unit Composition from Accuracy Assessment and Systematic Inventory Data (n=27) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| LUAR3 dt | silvery lupine | 19% |
| LUSE4 dt | silky lupine | 4% |
| Other Forblands | | 18% |
| FEID dt | Idaho fescue | 4% |
| Other Grasslands | | 10% |
| ARTRV dt | mountain big sagebrush | 37% |
| Other Shrublands | | 4% |
| Riparian Communities | | 4% |

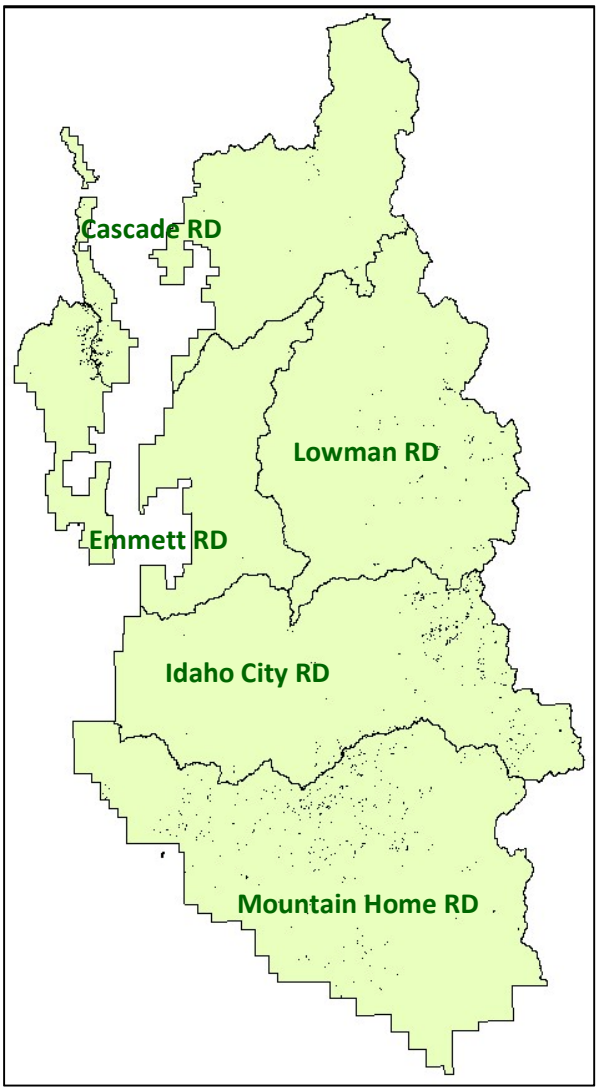
There are 47 geo-referenced, classified observations and plots in the Forbland map unit. These points document the occurrence of 20 dominance types and phases in this map unit. All 20 are listed below with the number of observations.

**Documented Dominance Types in the Forbland Map Unit.**

| Forests (1) | | Herblands (26) | | Shrublands (16) | |
|---|---|---|---|---|---|
| PSME-PSME dtp | 1 | ACOC3 dt – western needlegrass | 1 | ARTRV dt – mtn. big sage | 14 |
| | | BASA3 dt – arrowleaf balsamroot | 6 | CELAR dt – netleaf hackberry | 1 |
| | | CAGE2 dt – elk sedge | 1 | VACE dt – dwarf bilberry | 1 |
| | | ERHE2 dt – parsnipflower buckwheat | 1 | | |
| | | FEID dt – Idaho fescue | 1 | | |
| | | HICY dt – houndstongue hawkweed | 1 | | |
| | | JUPA dt – Parry's rush | 2 | **Riparian (1)** | |
| | | LUAR3 dt – silvery lupine | 5 | CAQU2 dt – small camas | 1 |
| | | LUSE4 dt – silky lupine | 4 | | |
| | | PEAT3 dt – sulphur penstemon | 1 | | |
| | | PHHO dt – Hood's phlox | 1 | | |
| | | POPH dt – alpine knotweed | 1 | **Sparse Vegetation (3** | |
| | | PTAQ dt – western brackenfern | 1 | BARREN | 1 |
| | | | | SP VEG - Sparse Vegetation | 2 |

**Environment:** The FO map unit ranges in elevation from 3400 to 8300 feet, but is mostly between 4600 and 7900 feet. This map unit ranges from 20 to 58 inches mean annual precipitation, but is predominantly between 28 and 56 inches.

**Distribution Map:** Extent of the FO map unit on the Boise National Forest.



**Successional Relationships:** The successional dynamics of the many dominance types in this map unit have not been studied in detail, but some general trends can be described. General seral relationships within this map unit are shown in the table below. The most common relations are labeled as MAJOR; less common relationships are labeled as Minor.

**Successional Trends in the Forbland Map Unit**

| | **PNV Types:** | | | | | | |
|---|---|---|---|---|---|---|---|
| **Existing Vegetation Types** | Forblands | Grasslands | Mtn. Big Sagebrush | Mountain Shrublands | Conifer Forests | Sparse Veg. | Riparian |
| Forblands | Minor | MAJOR | Minor | | MAJOR | | |
| Grasslands | ----- | Minor | --- | --- | Minor | | |
| Mtn. Big Sagebrush | | | MAJOR | Minor | Minor | | |
| Mtn. Shrublands | | | | Minor | | | |
| Sparse Vegetation | | | | --- | --- | Minor | |
| Riparian | | | | | | | Minor |

| | |
|---|---|
| Forbland | ~45% |
| Related | ~35% |
| Similar | ~10% |
| Dissimilar | ~10% |
| Not Observed | |
| Not Possible | |

This map unit is roughly estimated to be about 80 percent forbland dominance types, successionally related, and ecologically similar dominance types. It is about 20 percent ecologically dissimilar vegetation.

Bluebunch wheatgrass dominance type (PSSP6 dt).


Intermediate wheatgrass dominance type (THIN6 dt ).

**Map Unit Concept:** The Grassland map unit consists mostly of stands dominated by upland grasses or sedges and ecologically-related shrubland and forbland dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to grass-dominated vegetation, it should be treated as a mosaic of grasslands, forblands, and shrublands. It also includes small patches of conifer forests and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 943 | 0.2% |
| Emmett RD | 8,547 | 2.4% |
| Idaho City RD | 10,520 | 1.9% |
| Lowman RD | 2,936 | 0.6% |
| Mountain Home RD | 19,621 | 2.7% |
| Boise NF | 42,566 | 1.7% |

**Vegetation Map Group:** Herbland (H) – Trees total < 10% absolute cover, shrubs total < 10% absolute cover, and herbaceous plants total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 54 Plots | FIA: 3 | B-Grid: 2 | Ref: 20 | AA: 3 | Legacy: 26 |
| 51 Observations | | | | | |

**Map Unit Composition:** The systematic inventory plots currently available on the Boise NF are in mostly forested vegetation; these would not give a reasonable estimate of this map unit's composition. Composition of this map unit is based on the stratified sample collected for the accuracy assessment, even though it is not a spatially balanced sample. This map unit is roughly 31 percent forbland, 17 percent grassland, and 42 percent shrubland dominance types.

There are 71 geo-referenced, classified observations and plots in the Grassland map unit. These points document the occurrence of 29 dominance types and phases in this map unit. All 29 are listed below with the number of observations.

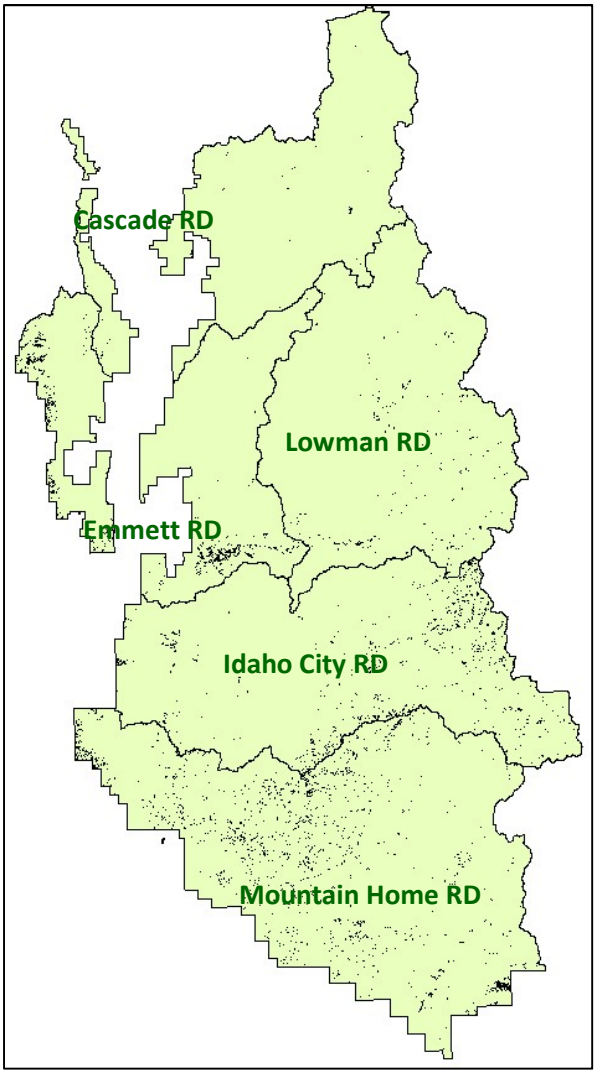
| Map Unit Composition from Accuracy Assessment Data (n=29) | |
|---|---|
| **Dominance Type or Phase** | **Percent** |
| PSSP6 dt bluebunch wheatgrass | 10% |
| FEID dt Idaho fescue | 7% |
| BASA3 dt arrowleaf balsamroot | 10% |
| ALAC4 dt tapertip onion | 7% |
| CHJU dt rush skeletonweed | 3% |
| Other Forblands | 11% |
| ARTRV dt mountain big sagebrush | 21% |
| SYOR2 dt mountain snowberry | 10% |
| Other Shrublands | 11% |
| Riparian Communities | 10% |

**Documented Dominance Types in the Grassland Map Unit**

| Herblands (38) | | Shrublands (23) | | Forests (5) | |
|---|---|---|---|---|---|
| ACOC3 dt – western needlegrass | 1 | ARARA dt – low sagebrush | 2 | ABLA-ABLA dtp | 2 |
| ALAC4 dt – tapertip onion | 2 | ARART dt – three-tipped low sage | 1 | PIPO dt | 2 |
| BASA3 dt -arrowleaf balsamroot | 6 | ARTRV dt – mtn. big sagebrush | 11 | PSME-PSME dtp | 1 |
| BRTE dt – cheatgrass | 2 | CEVE dt – snowbrush ceanothus | 1 | | |
| CAGE2 dt – elk sedge | 1 | PHMA5 dt – mallow ninebark | 1 | | |
| CHJU dt – rush skeletonweed | 2 | PREM dt – bitter cherry | 1 | | |
| EPBR3 dt – autumn willowweed | 1 | PUTR2 dt – bitterbrush | 3 | | |
| FEID dt – Idaho fescue | 3 | SYOR2 dt – mountain snowberry | 3 | | |
| POBU dt – bulbous bluegrass | 1 | | | | |
| PODO4 dt – Douglas' knotweed | 1 | | | **Riparian (3)** | |
| PSSP6 dt – bluebunch wheatgrass | 14 | | | ALINT dt – gray alder | 1 |
| THIN6 dt – intermediate wheatgrass | 2 | | | CAQU2 dt – small camas | 1 |
| WYAM dt – mule-ears | 2 | | | DACA3 dt – California oatgrass | 1 |
| | | | | **Sparse Vegetation (2** | |
| | | | | BARREN | 1 |
| | | | | SP VEG - Sparse Vegetation | 1 |

**Environment:** The GR map unit ranges in elevation from 3200 to 8100 feet, but is mostly between 3600 and 7400 feet. This map unit ranges from 20 to 57 inches mean annual precipitation, but is predominantly between 22 and 43 inches.

**Distribution Map:** Extent of the GR map unit on the Boise National Forest.



**Successional Relationships:** The successional dynamics of the many dominance types in this map unit have not been studied in detail, but some general trends can be described. General seral relationships within this map unit are shown in the table below. The most common relations are labeled as MAJOR, less common relationships are labeled as Minor.

**Successional Trends in the Mountain Big Sagebrush Map Unit**

| | **PNV Types:** | | | | | |
|---|---|---|---|---|---|---|
| **Existing Vegetation Types** | **Grasslands** | **Forblands** | **Sagebrush or Bitterbrush** | **Mountain Shrubland** | **Conifer Forests** | **Riparian** |
| Grasslands | MAJOR | Minor | Minor | --- | Minor | |
| Forblands | Minor | MAJOR | Minor | --- | Minor | |
| Mtn. big sagebrush | | | MAJOR | --- | Minor | |
| Bitterbrush | | | Minor | --- | --- | |
| Mountain Shrublands | | | Minor | Minor | | |
| Forest Shrublands | | | | | Minor | |
| Conifer Forests | | | | | Minor | |
| Riparian | | | | | | Minor |

| | |
|---|---|
| Grassland | ~20% |
| Related | ~50% |
| Similar | ~10% |
| Dissimilar | ~20% |
| --- Not Observed | |
| Not Possible | |

This map unit is roughly estimated to be about 80 percent grassland dominance types, successionally related, and ecologically similar dominance types. It is about 20 percent ecologically dissimilar vegetation.

Rush skeletonweed dominance type (CHJU dt).

Bulbous bluegrass dominance type (POBU dt).

**Map Unit Concept:** The Weedy Herbland map unit consists mostly of stands dominated by weedy upland forbs and grasses and ecologically-related dominance types. It also includes small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to forb-dominated vegetation, it should be treated as a mosaic of native forblands, grasslands, and shrublands, with some areas dominated by non-native weedy herbs. It also includes small patches of conifer forests and riparian areas.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | ---- | --- |
| Emmett RD | 3,013 | 0.9% |
| Idaho City RD | 1,121 | 0.2% |
| Lowman RD | 444 | 0.1% |
| Mountain Home RD | 12,255 | 1.7% |
| Boise NF | 16,832 | 0.7% |

**Vegetation Map Group:** Herbland (H) – Trees total < 10% absolute cover, shrubs total < 10% absolute cover, and herbaceous plants total ≥ 10% absolute cover.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 55 Plots | FIA: 1 | B-Grid: 0 | Ref: 23 | AA: 8 | Legacy: 23 |
| 28 Observations | | | | | |

**Map Unit Composition:** The systematic inventory plots currently available on the Payette NF are in mostly forested vegetation; these would not give a reasonable estimate of this map unit's composition. Only one systematic inventory plot was collected in this map unit, so composition of this map unit is based on that plus the accuracy assessment plots (including legacy data). This is not a spatially balanced sample, but it is the best available data.

This map unit is roughly 16 percent weedy herbland, 19 percent native forbland, 19 percent grassland, and 37 percent shrubland dominance types.

| Map Unit Composition from Accuracy Assessment and Systematic Inventory Data (n=32) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| BASA3 dt | arrowleaf balsamroot | 19% |
| PSSP6 dt | bluebunch wheatgrass | 16% |
| CHJU dt | rush skeletonweed | 13% |
| Other Herblands | | 6% |
| PUTR2 dt | antelope bitterbrush | 16% |
| ARTRV dt | mountain big sagebrush | 9% |
| Other Shrublands | | 6% |
| Riparian communities | | 6% |
| Conifer Forests | | 3% |

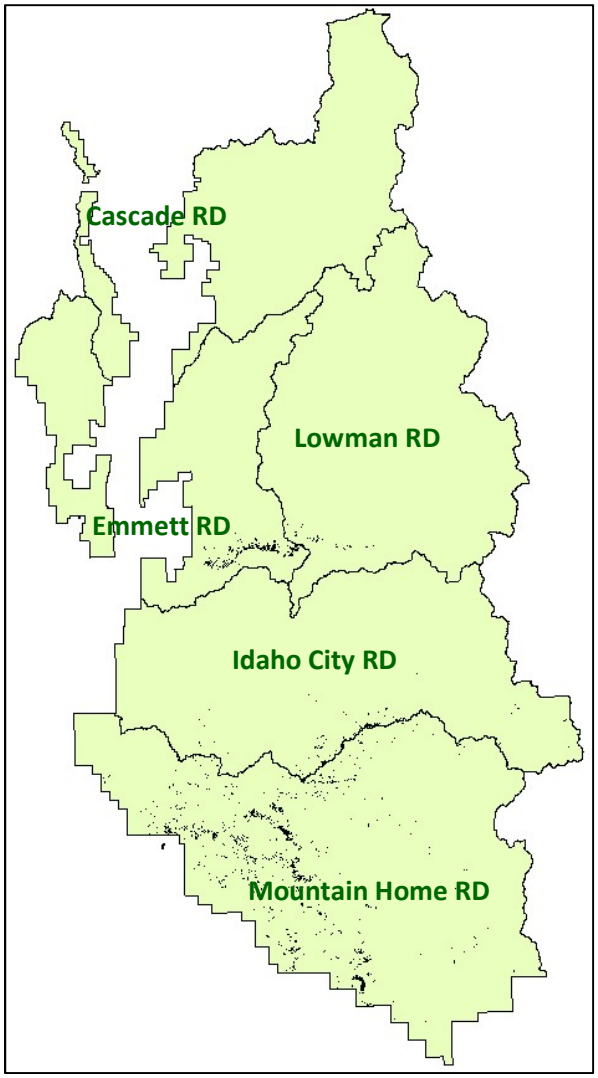
There are 80 geo-referenced, classified observations and plots in the Forbland map unit. These points document the occurrence of 19 dominance types and phases in this map unit. All 19 are listed below with the number of observations.

**Documented Dominance Types in the Weedy Herbland Map Unit.**

| Forests (1) | | Herblands (26) | | Shrublands (15) | |
|---|---|---|---|---|---|
| PIPO dt | 1 | BASA3 dt – arrowleaf balsamroot | 8 | ARTRV dt – mtn. big sage | 4 |
| | | BRTE dt – cheatgrass | 14 | CHVI8 dt – green rabbitbrush | 1 |
| | | CHJU dt – rush skeletonweed | 7 | ERNA10 dt – rubber rabbitbrush | 1 |
| | | POBU dt – bulbous bluegrass | 20 | PRVI dt – chokecherry | 1 |
| | | POCO dt – Canada bluegrass | 1 | PUTR2 dt – antelope bitterbrush | 7 |
| | | POSEJ dt – alkali bluegrass | 1 | ROWO dt – Woods' rose | 1 |
| | | PSSP6 dt – bluebunch wheatgrass | 5 | | |
| | | SIAL2 dt – tall tumblemustard | 1 | **Riparian (3)** | |
| | | THIN6 dt – intermediate wheatgrass | 4 | COSE16 dt – redosier dogwood | 1 |
| | | | | PHLE4 dt – Lewis' mockorange | 1 |
| | | | | SALA6 dt – arroyo willow | 1 |

**Environment:** The WH map unit ranges in elevation from 3300 to 5600 feet, but is mostly between 3500 and 5100 feet. This map unit ranges from 18 to 35 inches mean annual precipitation, but is predominantly between 19 and 32 inches.

**Distribution Map:** Extent of the WH map unit on the Boise National Forest.



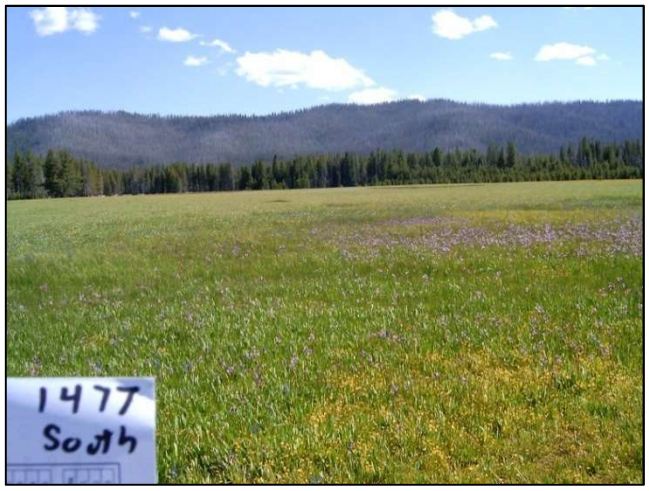
**Successional Relationships:** The successional dynamics of the many dominance types in this map unit have not been studied in detail, but some general trends can be described. General seral relationships within this map unit are shown in the table below. The most common relations are labeled as MAJOR; less common relationships are labeled as Minor.

**Successional Trends in the Forbland Map Unit**

| | **PNV Types:** | | | | | | |
|---|---|---|---|---|---|---|---|
| **Existing Vegetation Types** | Forblands | Grasslands | Mtn. Big Sagebrush | Bitterbrush | Mountain Shrublands | Conifer Forests | Riparian |
| Weedy Herblands | --- | --- | MAJOR | MAJOR | Minor | --- | |
| Native Forblands | --- | Minor | | | MAJOR | --- | |
| Grasslands | | MAJOR | Minor | --- | --- | --- | |
| Mtn. Big Sagebrush | | | MAJOR | Minor | Minor | --- | |
| Rabbitbrush | | | --- | Minor | --- | Minor | |
| Bitterbrush | | | --- | MAJOR | --- | --- | |
| Mtn. Shrublands | | | --- | --- | Minor | | |
| Conifer Forests | | | | | | Minor | |
| Riparian | | | | | | | Minor |

| | |
|---|---|
| Forbland | ~15% |
| Related | ~40% |
| Similar | ~20% |
| Dissimilar | ~25% |
| --- Not Observed | |
| Not Possible | |

This map unit is roughly estimated to be about 75 percent forbland dominance types, successionally related types, and ecologically similar dominance types. It is about 25 percent ecologically dissimilar vegetation.



Darkthroat shootingstar dominance type (DOPU dt).


Bluejoint reedgrass dominance type (CACA4 dt).

**Map Unit Concept:** The Riparian Herblands map unit consists mostly of riparian herbland with some riparian shrubland dominance types.

Although this map unit was intended to map riparian herblands, it should be treated as a mosaic of riparian herblands and shrublands, with small patches of forest.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 4,153 | 1.0% |
| Emmett RD | 676 | 0.2% |
| Idaho City RD | 329 | 0.1% |
| Lowman RD | 3,018 | 0.6% |
| Mountain Home RD | 5,277 | 0.7% |
| Boise NF | 13,453 | 0.5% |

**Vegetation Map Group:** Riparian (R) – Stand is located in a riparian setting as indicated by proximity to a stream or lake, topographic position, plant species that require or tolerate free or unbound water, and/or soil properties associated with seasonally high water tables.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 51 Plots | FIA: 0 | B-Grid: 1 | Ref: 10 | AA: 17 | Legacy: 23 |
| 40 Observations | | | | | |

**Map Unit Composition:** No spatially balanced estimate of composition is available for this map unit. Only one systematic inventory plot occurs in this map unit. Composition of this map unit is based on 40 stratified accuracy samples plus the one systematic plot.

This map unit is 44 percent riparian herblands, 15 percent riparian shrublands, 17 percent upland grasslands, and 10 percent forests.

There are 58 geo-referenced and classified observations and plots in the Riparian Shrublands map unit. These points document the occurrence of 33 dominance types and phases in this map unit. All 33 are listed below with the number of observations.

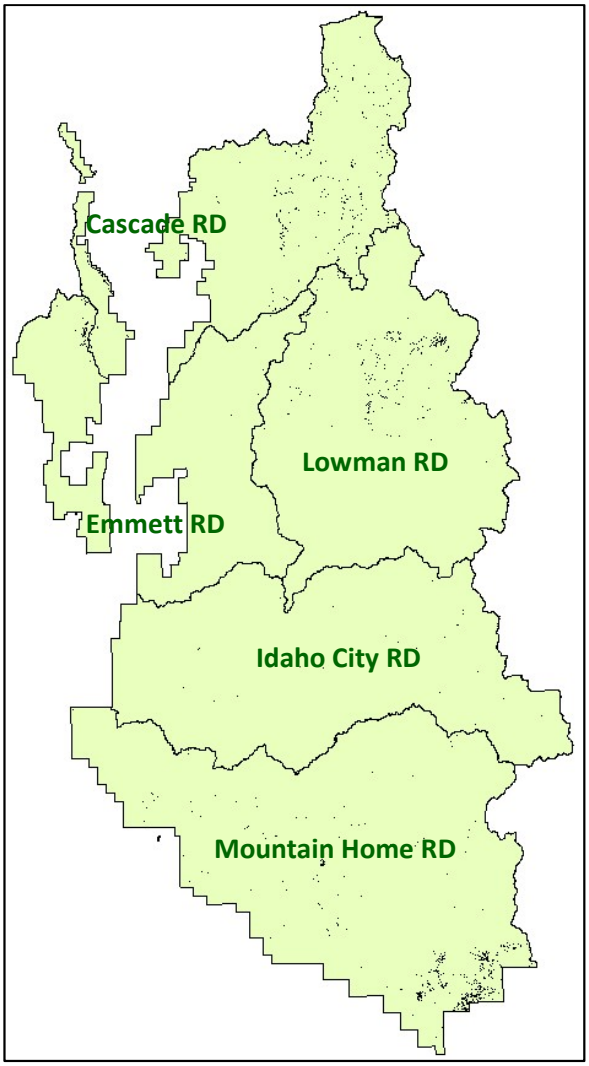
| Map Unit Composition from Accuracy Assessment and Systematic Inventory Plots (n=41) | | |
|---|---|---|
| **Dominance Type or Phase** | **Percent** | **Acres** |
| CACA4 dt | 5% | 673 |
| CASC12 dt | 5% | 673 |
| Other Riparian Herblands | 34% | 4,574 |
| Riparian Shrublands | 13% | 1,749 |
| Riparian Woodlands | 2% | 269 |
| PICO dt | 7% | 942 |
| PIEN dt | 3% | 404 |
| Upland Grasslands | 17% | 2,287 |
| Upland Shrublands | 5% | 673 |
| Unidentified communities | 7% | 942 |
| Water | 2% | 269 |

**Documented Dominance Types in the Riparian Herblands Map Unit.**

| Riparian Herblands (19) | | Riparian Shrublands (6) | | Forests (18) | |
|---|---|---|---|---|---|
| CACA4 dt – bluejoint reedgrass | 2 | DAFR6 dt – shrubby cinquefoil | 1 | ABLA-ABLA dtp | 3 |
| CALA11 dt – woolyfruit sedge | 1 | SABO2 dt – Booth's willow | 1 | PICO dt | 8 |
| CALI7 dt – mud sedge | 1 | SACO2 dt – undergreen willow | 1 | PIEN dt | 6 |
| CANE2 dt – Nebraska sedge | 1 | SALIX dt – willow | 2 | PSME-PSME dtp | 1 |
| CASA10 dt – rock sedge | 1 | SAPL2 dt – diamondleaf willow | 1 | | |
| CASC12 dt – mountain sedge | 2 | | | | |
| CASI2 dt – analogue sedge | 1 | **Upland Herblands (12)** | | **Riparian Woodlands (1)** | |
| DAIN dt – timber oatgrass | 1 | ACOC3 dt – western needlegrass | 1 | ALVIS-R dt – gray alder | 1 |
| DECE dt – tufted hairgrass | 1 | CAGE2 dt – elk sedge | 1 | | |
| DOPU dt – darkthroat shootingstar | 1 | CAHO5 dt – Hood's sedge | 2 | | |
| ELQU2 dt – fewflower spikerush | 1 | FEID dt – Idaho fescue | 1 | | |
| HOBR2 dt – meadow barley | 1 | JUPA dt – Parry's rush | 2 | **Upland Shrublands (2)** | |
| METR3 dt - buckbean | 1 | POSEJ dt – alkali bluegrass | 1 | ARTRV dt – mtn. big sagebrush | 1 |
| NULUP dt – Rocky Mtn. pond-lily | 1 | PSSP6 dt – bluebunch wheatgrass | 1 | ERNA10 dt – rubber rabbitbrush | 1 |
| SPAN2 dt – narrowleaf bur-reed | 1 | WYHE2 dt – sunflower mule-ears | 3 | | |
| TRCA30 dt – tufted bulrush | 1 | | | | |
| VECA2 dt – Calif. false hellebore | 1 | | | | |

**Environment:** The RHE map unit ranges in elevation from 4200 to 8100 feet, but is mostly between 5300 and 7400 feet. It ranges from 19 to 65 inches mean annual precipitation, but is predominantly between 23 and 59 inches.

**Distribution Map:** Extent of the RHE map unit on the Boise National Forest.




**Successional Relationships:** Successional dynamics in undisturbed riparian systems are driven primarily by changes in hydrology and stream morphology. Riparian herblands may or may not be successionally related to riparian shrublands and woodlands, but they are ecologically similar due to the availability of ground water. Upland vegetation is ecologically dissimilar to riparian vegetation. Based on accuracy assessment and systematic inventory data, this map unit is 44 percent riparian herblands and woodlands, 15 percent ecologically similar riparian shrublands, and 39 percent dissimilar upland dominance types.

Booth's willow dominance type (SABO2 dt).


Sitka alder dominance type (ALVIS-R dt).

**Map Unit Concept:** The Riparian Shrublands map unit consists mostly of riparian shrubland with some riparian deciduous woodland and herbland dominance types.

Although this map unit was intended to map riparian shrublands and woodlands, it should be treated as a mosaic of riparian shrublands and herblands, with small patches of forest.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 3,982 | 1.0% |
| Emmett RD | 1,340 | 0.4% |
| Idaho City RD | 6,702 | 1.2% |
| Lowman RD | 7,843 | 1.7% |
| Mountain Home RD | 16,933 | 2.3% |
| Boise NF | 36,800 | 1.5% |

**Vegetation Map Group:** Riparian (R) – Stand is located in a riparian setting as indicated by proximity to a stream or lake, topographic position, plant species that require or tolerate free or unbound water, and/or soil properties associated with seasonally high water tables.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 132 Plots | FIA: 4 | B-Grid: 2 | Ref: 37 | AA: 0 | Legacy: 89 |
| 115 Observations | | | | | |

**Map Unit Composition:** No spatially balanced estimate of composition is available for this map unit. Only six systematic inventory plots occur in this map unit. Composition of this map unit is based on 89 stratified samples plus the 6 systematic plots.

This map unit is roughly 26 percent riparian shrublands, 20 percent riparian woodlands, 33 percent riparian herblands, and 16 percent upland forests.

There are 170 referenced and classified observations and plots in the Riparian Shrublands map unit. These points document the occurrence of 59 dominance types and phases in this map unit. The 53 riparian and forest types are listed below with the number of observations.

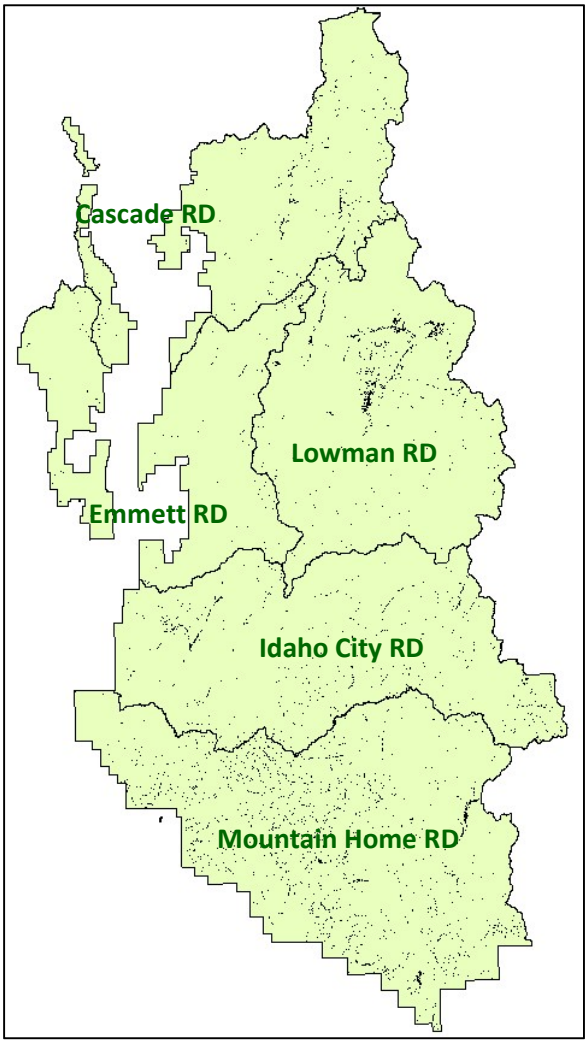
| Map Unit Composition from Accuracy Assessment and Inventory Plots (n=95) | | |
|---|---|---|
| Dominance Type or Phase | Percent | Acres |
| POBAT dt | 9% | |
| BEOC2 dt | 5% | |
| ALINT dt | 4% | |
| SAEA dt | 3% | |
| SAWO dt | 3% | |
| Other Riparian Shrublands | 22% | |
| Riparian Herblands | 33% | |
| Conifer Forests | 13% | |
| POTR5-POTR5 dtp | 3% | |
| Upland Shrubland | 1% | |
| Upland Herbland | 1% | |
| Unidentified communities | 3% | |

**Documented Dominance Types in the Riparian Shrublands Map Unit.**

| Riparian Shrublands (88) | | Riparian Herblands (35) | | | |
|---|---|---|---|---|---|
| BENA dt – dwarf birch | 2 | CAAQ dt – water sedge | 1 | HOBR2 dt – meadow barley | 1 |
| COSE16 dt – redosier dogwood | 4 | CACA4 dt – bluejoint reegrass | 3 | JUARL dt – mountain rush | 2 |
| DAFR6 dt – shrubby cinquefoil | 3 | CACU5 dt – Cusick's sedge | 2 | JUEN dt – swordleaf rush | 1 |
| RHAL dt – alderleaf buckthorn | 1 | CALE4 dt – white marsh marigold | 1 | LEOR dt – rice cutgrass | 1 |
| SABE2 dt – Bebb's willow | 1 | CALU7 dt – woodrush sedge | 2 | MUFI2 dt – pullup muhly | 1 |
| SABO2 dt – Booth's willow | 5 | CAPR5 dt – clustered field sedge | 1 | POGR9 dt – slender cinquefoil | 2 |
| SACO2 dt – undergreen willow | 2 | CAUT dt – NW Territory sedge | 2 | SCMI2 dt – panicled bulrush | 1 |
| SADR dt – Drummond's willow | 1 | CLCO3 dt – heartleaf springbeauty | 1 | SEHY dt – tall groundsel | 1 |
| SAEA dt – Eastwood's willow | 3 | DAIN dt – timber oatgrass | 3 | SETR dt – arrowleaf groundsel | 1 |
| SAGE2 dt – Geyer's willow | 1 | DECE dt – tufted hairgrass | 1 | SYFO2 dt – alpine leafybract aster | 1 |
| SALE dt – Lemmon's willow | 1 | ELQU2 dt – fewflower spikerush | 1 | TOPAP3 dt – pale false mannagrass | 1 |
| SALIX – willow | 20 | ERAN6 dt – tall cottongrass | 1 | TYLA dt – broadleaf cattail | 1 |
| SALU2 dt – yellow willow | 1 | GLBO dt – northern mannagrass | 1 | | |
| SALUC dt – greenleaf willow | 2 | **Riparian Woodlands (34)** | | **Forests (38)** | |
| SAPL2 dt – diamondleaf willow | 1 | ALINT dt – gray alder | 5 | ABLA-ABLA dtp | 4 |
| SASC dt – Scouler's willow | 2 | ALVIS-R dt – Sitka alder | 7 | PICO dt | 8 |
| SAWO dt – Wolf's willow | 3 | BEOC2 dt – water birch | 6 | PIEN dt | 7 |
| SPDO dt – rose spirea | 1 | POBAT dt – black cottonwood | 16 | PIPO dt | 8 |
| | | | | PSME-PIPO dtp | 2 |
| | | | | POTR5-POTR5 dtp | 11 |

**Environment:** The RSH map unit ranges in elevation from 3300 to 8400 feet, but is mostly between 3800 and 7000 feet. It ranges from 17 to 65 inches mean annual precipitation, but is predominantly between 21 and 53 inches.

**Distribution Map:** Extent of the RSH map unit on the Boise National Forest.




**Successional Relationships:** Successional dynamics in undisturbed riparian systems are driven primarily by changes in hydrology and stream morphology. Riparian herblands may or may not be successionally related to riparian shrublands and woodlands, but they are ecologically similar due to the availability of ground water. Upland vegetation is ecologically dissimilar to riparian vegetation. Based on accuracy assessment and systematic inventory data, this map unit is 46 percent riparian shrublands and woodlands, 33 percent ecologically similar riparian herblands, and 21 percent dissimilar upland dominance types.

Snowbrush ceanothus dominance type (CEVE dt).

White spirea dominance type (SPBE2 dt).

**Map Unit Concept:** The Burned Forest Shrubland map unit consists mostly of recently burned forest stands dominated by shrubland dominance types. It also includes recent burns dominated by herbs, very recent burns with sparse vegetation, unburned or partially burned patches of forest, and small areas of ecologically dissimilar dominance types and phases.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 12,729 | 3.2% |
| Emmett RD | 3,116 | 0.9% |
| Idaho City RD | 36,633 | 6.5% |
| Lowman RD | 6,980 | 1.5% |
| Mountain Home RD | 14,123 | 1.9% |
| Boise NF | 73,582 | 2.9% |

Although this map unit was intended to map burned areas dominated by shrubs, it should be treated as a mosaic of shrublands and grasslands, with small patches of conifer forests.

**Vegetation Map Group:** Burned (B) – Live trees total < 10% absolute cover and standing dead trees usually present.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 86 Plots | FIA: 3 | B-Grid: 10 | Ref: 54 | AA: 15 | Legacy: 4 |
| 94 Observations | | | | | |

**Map Unit Composition:** Only 13 systematic inventory plots are available for this map unit and 8 of those have not been assigned to dominance type. Composition of this map unit is based on 19 accuracy assessment and 5 inventory plots, even though it is not a spatially balanced sample.

This map unit is 49 percent forest shrublands, 21 percent herbaceous dominance types, and 13 percent conifer forests.

There are 142 geo-referenced, classified observations and plots in the Burned Forest Shrubland map unit. These points document the occurrence of 31 dominance types and phases in this map unit. All 31 are listed below with the number of observations.

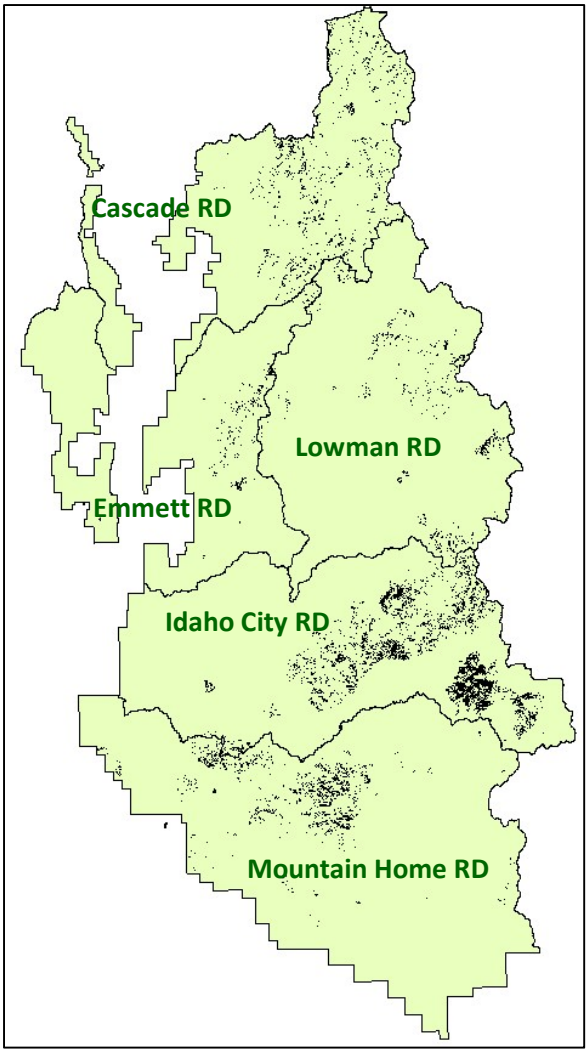
| Map Unit Composition from Accuracy Assessment and Reference Data (n=24) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| CEVE dt | snowbrush ceanothus | 33% |
| PHMO4 dt | mountain ninebark | 4% |
| SPBE2 dt | white spirea | 4% |
| VAME dt | thinleaf huckleberry | 4% |
| RUPA dt | thimbleberry | 4% |
| PRVI dt | common chokecherry | 4% |
| PSME-PSME dtp | Douglas-fir | 9% |
| PICO dt | lodgepole pine | 4% |
| CARU dt | pinegrass | 12% |
| Sparse Tree | | 4% |
| Riparian Shrublands | | 9% |
| Herblands | | 9% |

**Documented Dominance Types in the Burned Forest Shrubland Map Unit.**

| Shrublands (105) | | Forests (23) | | Herblands (12) | |
|---|---|---|---|---|---|
| ACGL dt – Rocky Mountain maple | 4 | ABLA-PSME dtp | 1 | BASA3 dt – balsamroot | 2 |
| CESA dt – redstem ceanothus | 1 | PICO dt | 2 | BRTE dt – cheatgrass | 1 |
| CEVE dt – snowbrush ceanothus | 56 | PIEN dt | 1 | CAGE2 dt – elk sedge | 2 |
| MARE11 dt – creeping barberry | 1 | PIPO dt | 9 | CARU dt – pinegrass | 3 |
| PHMA5 dt – mallow ninebark | 6 | PSME-PICO dtp | 2 | CHAN9 dt – fireweed | 1 |
| PHMO4 dt – mountain ninebark | 1 | PSME-PIPO dtp | 2 | PHHA dt – silverleaf phacelia | 1 |
| PREM dt – bitter cherry | 8 | PSME-PSME dtp | 6 | POBU dt – bulbous bluegrass | 1 |
| PRVI dt – common chokecherry | 7 | | | PSSP6 dt – bluebunch wheatgrass | 1 |
| RILA dt – prickly currant | 1 | | | | |
| RUPA dt – thimbleberry | 1 | **Riparian (2)** | | **Sparse Vegetation (0)** | |
| SASC dt – Scouler's willow | 6 | ALINT dt – thinleaf alder | 1 | | |
| SYOR2 dt – mountain snowberry | 3 | RIHU dt – northern black currant | 1 | | |
| VAME dt – thinleaf huckleberry | 2 | | | | |
| VASC dt – grouse whortleberry | 8 | | | | |

**Environment:** The BFS map unit ranges in elevation from 3600 to 7800 feet, but is mostly between 4800 and 7000 feet. This map unit ranges from 21 to 65 inches mean annual precipitation, but is predominantly between 28 and 47 inches.

**Distribution Map:** Extent of the BFS map unit on the Boise National Forest.



**Successional Relationships:** This map unit consists mostly of recently burned stands dominated by forbs, grasses, or shrubs. Based on accuracy assessment and reference plots where both dominance type and PNV series have been identified, 50 percent of this map unit is seral to Douglas-fir, 44 percent to subalpine fir, and 6 percent to ponderosa pine.

| Successional Trends in the BFS Map Unit | | | | | |
|---|---|---|---|---|---|
| | PNV Types | | | | |
| **Existing Vegetation Types** | **PUTR2** | **PIPO** | **PSME** | **ABLA** | **Riparian** |
| Herb-dominated | 1 | --- | --- | 3 | |
| Forest Shrubland | | --- | 8 | 2 | |
| Mtn. Shrubland | | 1 | --- | --- | |
| Conifer Forests | | --- | 1 | 2 | |
| Sparse Vegetation | --- | --- | --- | 1 | |
| Riparian Shrubland | | | | | 2 |

| | | |
|---|---|---|
| | Burned Forest Shrub | 53% |
| | Related | 21% |
| | Similar | 21% |
| | Dissimilar | 15% |
| | --- Not Observed | |
| | Not Possible | |

Burned sparse vegetation is often seral to burned shrubland as the vegetation recovers post-fire, so these are probably ecologically related. Since most of the dominant shrubs in this map unit resprout after fire, they are not successionally related to herbaceous dominance type, but they are ecologically similar because they are seral to the same forest PNV Series. Likewise, conifer forest dominance types are ecologically similar to the shrubland types.

This map unit is roughly estimated to be about 53 percent burned forest shrubland dominance types, 42 percent successionally related and ecologically similar dominance types, and 15% ecologically dissimilar dominance types.

Fireweed dominance type (CHAN9 dt).

Elk sedge dominance type (CAGE2 dt).

**Map Unit Concept:** The Burned Herbland map unit consists mostly of recently burned forest stands dominated by grass and forb dominance types. It also includes recent burns dominated by shrubs, very recent burns with sparse vegetation, unburned or partially burned patches of forest, and small areas of ecologically dissimilar dominance types and phases.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 62,637 | 15.6% |
| Emmett RD | 5,020 | 1.4% |
| Idaho City RD | 23,781 | 4.2% |
| Lowman RD | 34,001 | 7.3% |
| Mountain Home RD | 6,467 | 0.9% |
| Boise NF | 131,905 | 5.2% |

Although this map unit was intended to map burned areas dominated by grasses and forbs, it should be treated as a mosaic of grasslands and shrublands, with small patches of conifer forests.

**Vegetation Map Group:** Burned (B) – Live trees total < 10% absolute cover and standing dead trees usually present.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 108 Plots | FIA: 11 | B-Grid: 13 | Ref: 54 | AA: 23 | Legacy: 7 |
| 114 Observations | | | | | |

**Map Unit Composition:** Composition of this map unit is based on the stratified sample collected for the accuracy assessment and 15 systematic inventory plots, even though it is not a spatially balanced sample. The other 9 inventory plots have not been identified to dominance type.

This map unit is 40 percent herblands, 18 percent shrublands, 31 percent forests, and 7 percent sparse vegetation.

**Map Unit Composition from Accuracy Assessment Data (n=45)**

| Dominance Type or Phase | Percent |
|---|---|
| CHAN9 dt fireweed | 16% |
| CARU dt pinegrass | 11% |
| Other herbland dominance types | 13% |
| Forest Shrublands | 18% |
| Barren and Sparse Vegetation | 7% |
| Conifer Forests | 31% |
| Riparian Communities | 4% |

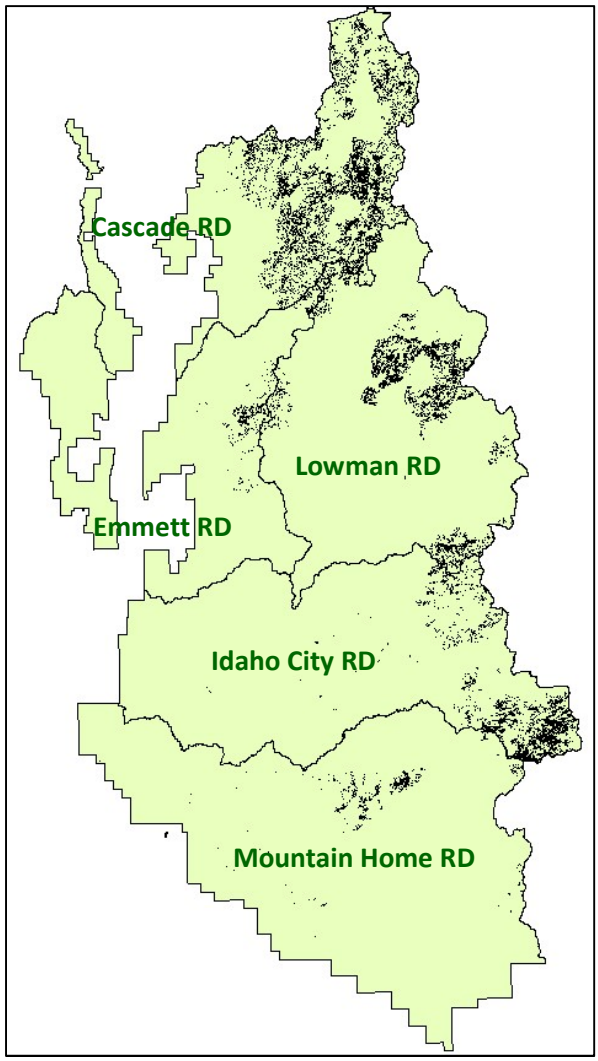
There are 171 geo-referenced, classified observations and plots in the Burned Herbland map unit. These points document the occurrence of 33 dominance types and phases in this map unit. All 33 are listed below with the number of observations.

**Documented Dominance Types in the Burned Herbland Map Unit.**

| Forests (67) | | Shrublands (20) | | Herblands (66) | |
|---|---|---|---|---|---|
| ABLA-ABLA dtp | 8 | ACGL dt – Rocky Mtn. maple | 1 | BASA3 dt – arrowleaf balsamroot | 1 |
| ABLA-PIAL dtp | 2 | CEVE dt – snowbrush | 6 | CAGE2 dt – elk sedge | 32 |
| ABLA-PSME dtp | 1 | SASC dt – Scouler's willow | 1 | CARU dt – pinegrass | 14 |
| LAOC dt | 2 | SPBE2 dt – white spirea | 1 | CHAN9 dt – fireweed | 14 |
| PICO dt | 28 | SYAL dt – common snowberry | 1 | FEID dt – Idaho fescue | 1 |
| PIEN dt | 7 | SYOR2 dt – mtn. snowberry | 6 | LUGL2 dt – smooth woodrush | 1 |
| PIPO dt | 7 | VASC dt – grouse whortleberry | 4 | POPH dt – poke knotweed | 1 |
| PSME-PICO dtp | 6 | | | PSSP6 dt – bluebunch wheatgrass | 2 |
| PSME-PIPO dtp | 2 | | | | |
| PSME-PSME dtp | 4 | **Riparian (4)** | | **Sparse Vegetation (14)** | |
| | | ALINT dt – gray alder | 1 | BARREN | 5 |
| | | CACA4 dt – bluejoint reedgrass | 1 | SP HERB – Sparse Herb | 2 |
| | | COSE16 dt – redosier dogwood | 1 | SP TREE – Sparse Tree | 2 |
| | | JUARL dt – mountain rush | 1 | SP VEG – Sparse Vegetation | 5 |

**Environment:** The BHE map unit ranges in elevation from 4500 to 8800 feet, but is mostly between 5500 and 7700 feet. This map unit ranges from 28 to 70 inches mean annual precipitation, but is predominantly between 33 and 58 inches.

**Distribution Map:** Extent of the BHE map unit on the Boise National Forest.



**Successional Relationships:** This map unit consists mostly of recently burned stands dominated by forbs, grasses, or shrubs. Based on accuracy assessment plots where both dominance type and PNV series have been identified, 64 percent of this map unit is seral to subalpine fir, 21% to grand fir, and 7% to Douglas-fir.

| Successional Trends in the BHE Map Unit | | | | | |
|---|---|---|---|---|---|
| | PNV Types | | | | |
| **Existing Vegetation Types** | **PIEN** | **PSME** | **ABGR** | **ABLA** | **Riparian** |
| Grass-dominated | --- | 1 | 2 | 5 | |
| Forb-dominated | --- | --- | 3 | 5 | |
| Sparse Vegetation | --- | --- | --- | 2 | |
| Conifer Forests | 1 | 2 | 2 | 9 | |
| Shrub-dominated | --- | --- | 2 | 6 | |
| Riparian | | | | | 2 |

| | |
|---|---|
| Burned Herbland | 38% |
| Related | 36% |
| Similar | 19% |
| Dissimilar | 7% |
| --- Not Observed | |
| Not Possible | |

Burned sparse vegetation is often seral to burned herbland as the vegetation recovers post-fire, so these are probably ecologically related. Since most of the dominant shrubs in this map unit resprout after fire, they are not successionally related to herbaceous dominance type, but they are ecologically similar because they are seral to the same forest PNV Series. Likewise, conifer forest dominance types are ecologically similar to the herbaceous types.

This map unit is roughly estimated to be about 38 percent burned herbaceous dominance types, 55 percent successionally related and ecologically similar dominance types, and about 7 percent ecologically dissimilar vegetation.

Sparse Vegetation (all life forms <5% cover).

Sparse Shrubs (shrubs >5% cover).

**Map Unit Concept:** The Burned Sparse Vegetation map unit consists mostly of very recently burned forest stands with less than 10, percent vegetation cover. It also includes recent burns dominated by herbs or shrubs, unburned or partially burned patches of forest, and small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to map burned areas with sparse vegetation, it should be treated as a mosaic of sparse vegetation, shrublands, herblands, and conifer forests.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 50,442 | 12.6% |
| Emmett RD | 3,342 | 0.9% |
| Idaho City RD | 3,967 | 0.7% |
| Lowman RD | 18,977 | 4.0% |
| Mountain Home RD | 71 | <0.1% |
| Boise NF | 76,798 | 3.0% |

**Vegetation Map Group:** Burned (B) – Live trees total < 10% absolute cover and standing dead trees usually present.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 68 Plots | FIA: 7 | B-Grid: 14 | Ref: 23 | AA: 17 | Legacy: 7 |
| 32 Observations | | | | | |

**Map Unit Composition:** Composition of this map unit is based on 24 stratified accuracy assessment and 13 classified systematic inventory plots, even though it is not a spatially balanced sample. Eight B-Grid plots are unclassified.

This map unit is 22 percent sparse vegetation, 33 percent herbaceous dominance types, 19 percent shrublands, and 16 percent conifer forests.

There are 83 geo-referenced classified observations and plots in the Burned Forest Shrubland map unit. These points document the occurrence of 23 dominance types and phases in this map unit. All 23 are listed below with the number of observations.

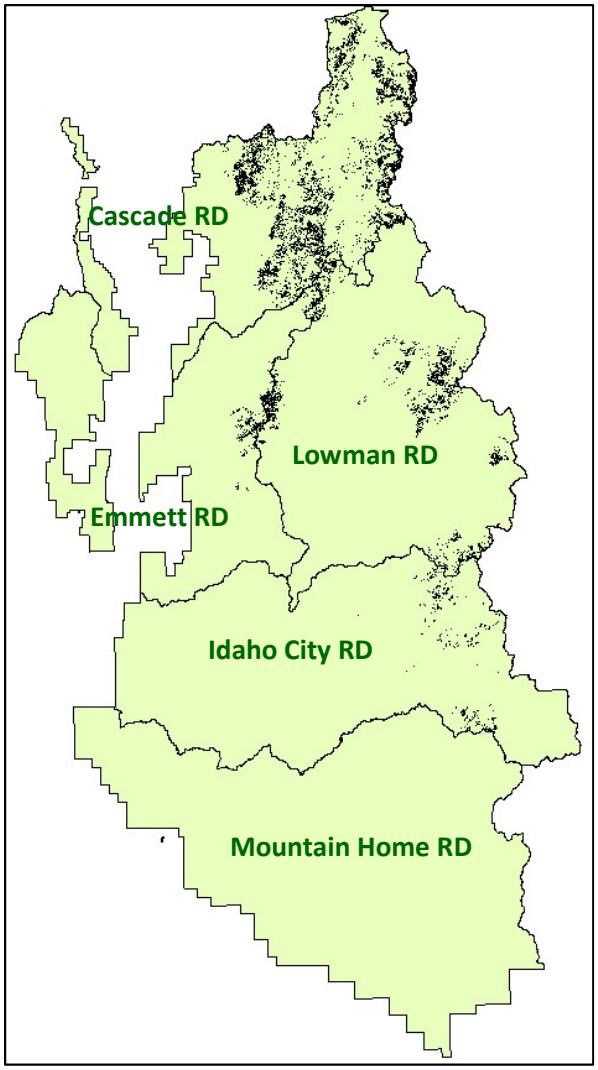
| Map Unit Composition from Accuracy Assessment and Reference Data (n=37) | |
|---|---|
| **Dominance Type or Phase** | **Percent** |
| Barren (total veg cover <1%) | 14% |
| Sparse Vegetation | 8% |
| CARU dt pinegrass | 14% |
| CHAN9 dt fireweed | 11% |
| Other herbland dominance types | 8% |
| Shrubland dominance types | 19% |
| Conifer forest types | 16% |
| Riparian dominance types | 8% |

**Documented Dominance Types in the Burned Forest Shrubland Map Unit.**

| Forests (27) | | Shrublands (9) | | Herblands (21) | |
|---|---|---|---|---|---|
| ABLA-ABLA dtp | 6 | ARTRV dt – mtn. big sagebrush | 1 | CAGE2 dt – elk sedge | 9 |
| ABLA-PSME dtp | 2 | CEVE dt – snowbrush ceanothus | 2 | CARU dt – pinegrass | 8 |
| PICO dt | 7 | VACE ft – dwarf huckleberry | 1 | CHAN9 dt – fireweed | 4 |
| PIEN dt | 5 | VAME dt – big huckleberry | 4 | | |
| PIPO dt | 1 | VASC dt – grouse whortleberry | 1 | | |
| PSME-PICO dtp | 3 | | | | |
| PSME-PIPO dtp | 1 | | | | |
| PSME-PSME dtp | 2 | | | | |
| **Riparian (3)** | | **Sparse Vegetation (23)** | | | |
| DIACF dt – western pannicgrass | 1 | BARREN | 10 | | |
| ELRO2 dt – beaked spikerush | 1 | SP SHRUB – Sparse Shrubs | 1 | | |
| SAME2 dt – dusky willow | 1 | SP TREE – Sparse Trees | 1 | | |
| | | SP VEG – Sparse Vegetation | 11 | | |

**Environment:** The BSV map unit ranges in elevation from 5100 to 8800 feet, but is mostly between 5500 and 7900 feet. This map unit ranges from 34 to 70 inches mean annual precipitation, but is predominantly between 39 and 63 inches.

**Distribution Map:** Extent of the BSV map unit on the Boise National Forest.



**Successional Relationships:** This map unit consists mostly of recently burned stands dominated by forbs, grasses, or shrubs. Based on accuracy assessment and reference plots where both dominance type and PNV series have been identified, 54 percent of this map unit is seral to subalpine fir, 29 percent to grand fir, and 6 percent to Douglas-fir.

| Successional Trends in the Mountain Big Sagebrush Map Unit | | | | | |
|---|---|---|---|---|---|
| | **PNV Types** | | | | |
| **Existing Vegetation Types** | **ARTRV** | **PSME** | **ABGR** | **ABLA** | **Riparian** |
| Barren / Sparse | --- | --- | --- | 6 | --- |
| Herblands | --- | 1 | 4 | 8 | |
| Shrublands | 1 | --- | 5 | 1 | |
| Conifer Forests | | 1 | 1 | 4 | |
| Riparian | | | | | 3 |

| | |
|---|---|
| Sparse Vegetation | 17% |
| Related | 54% |
| Similar | 20% |
| Dissimilar | 9% |
| --- Not Observed | |
| Not Possible | |

Burned sparse vegetation is often seral to burned herbaceous vegetation as the vegetation recovers post-fire, so these successionally related. Conifer forest dominance types are ecologically similar to burned sparse vegetation because burned areas eventually return to conifer forests. Shrublands are ecologically similar to sparse vegetation, but not usually related. Most forest shrubs resprout after fire, so they not always related to sparse vegetation. Sparse vegetation can be seral to mountain big sagebrush, but sagebrush is not usually seral to conifer forests.

This map unit is roughly estimated to be about 17 percent burned sparse vegetation, 74 percent successionally related and ecologically similar dominance types, and about 9 percent ecologically dissimilar vegetation.

Barren (total vegetation cover <1%).


Sparse Shrubs (total vegetation cover <10%, shrubs >5% cover).

**Map Unit Concept:** The Barren/Sparse Vegetation map unit consists mostly of sparse vegetation with less than 10 percent vegetation cover and barren areas with less than 1 percent cover. It also includes herbaceous, shrubland, and conifer forest dominance types with relatively low cover, and small areas of ecologically dissimilar dominance types and phases.

Although this map unit was intended to map sparse vegetation, it should be treated as a mosaic of barren areas, sparse vegetation, forblands, and conifer forests.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 979 | 0.2% |
| Emmett RD | 508 | 0.1% |
| Idaho City RD | 6,053 | 1.1% |
| Lowman RD | 2,666 | 0.6% |
| Mountain Home RD | 2,326 | 0.3% |
| Boise NF | 12,533 | 0.5% |

**Vegetation Map Group:** Non-Vegetated/Sparse Vegetation (N) – Live vegetation < 10% absolute cover, or lands not occupied by naturally occurring plant communities.

**Sample Size:**

| | | | | | |
|---|---|---|---|---|---|
| 8 Plots | FIA: 1 | B-Grid: 0 | Ref: 4 | AA: 2 | Legacy: 1 |
| 10 Observations | | | | | |

**Map Unit Composition:** Composition of this map unit is based on all plots and observations, even though this is not a spatially balanced sample. Only 1 inventory plot and 3 stratified AA plots are available, so reference plots and observations are also used.

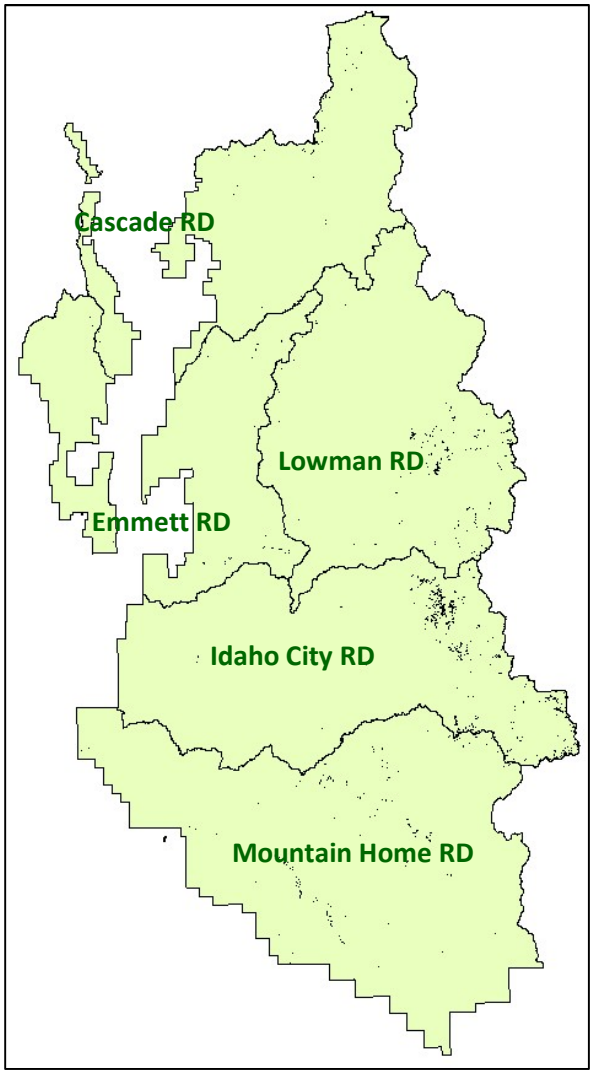
This map unit is, very roughly, 38 percent barren, 28 percent sparse vegetation, 17 percent herblands, and 11 percent forests.

All dominance types documented in this map unit are listed in the table to the right.

| Map Unit Composition from All Plots and Observations (n=18) | | |
|---|---|---|
| **Dominance Type or Phase** | | **Percent** |
| BARREN | Barren | 38% |
| SP VEG | Sparse Vegetation | 22% |
| SP SHRUB | Sparse Shrubs | 6% |
| Unidentified Forblands | | 11% |
| POBU dt | bulbous bluegrass | 6% |
| PSME-PSME dtp | Douglas-fir | 11% |
| DOJE dt | Sierra shootingstar | 6% |

**Environment:** The BR/SV map unit ranges in elevation from 3400 to 8900 feet. It ranges from 19 to 58 inches mean annual precipitation.

**Distribution Map:** Extent of the BR/SV map unit on the Boise National Forest.




**Successional Relationships:** This map unit consists mostly of recently sparse vegetation and barren areas. Most of these areas are at their site potential; some are seral to subalpine fir.

This map unit is roughly estimated to be about 60 percent sparse vegetation and barren site potential, 30 percent seral to conifer forests dominance types, and about 10 percent ecologically dissimilar vegetation.

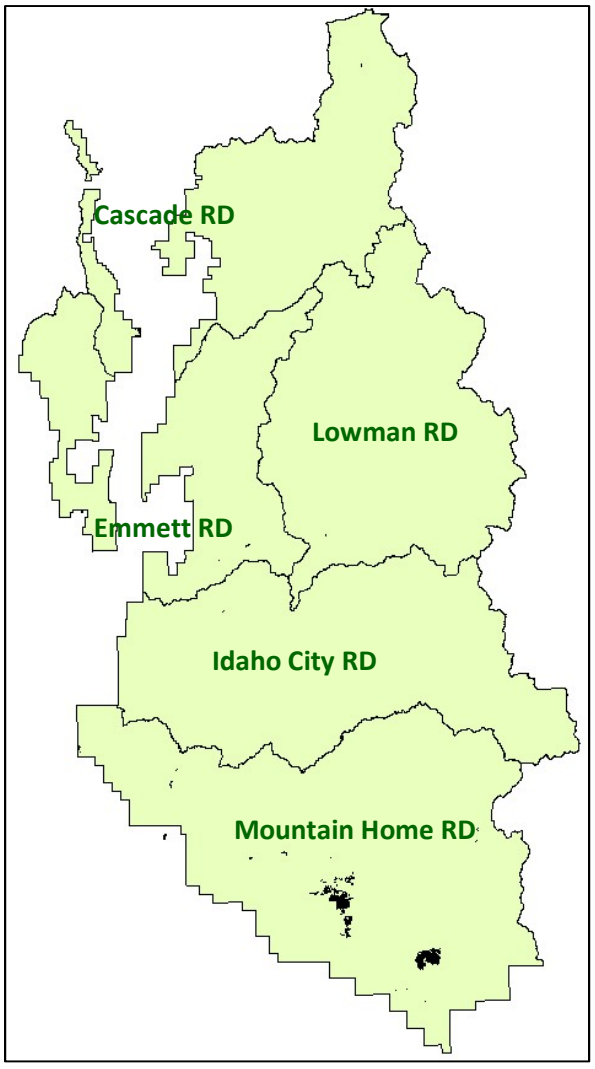
**Map Unit Concept:** The Agriculture map unit is intended to delineate lands currently used for agriculture.

**Vegetation Map Group:** Non-Vegetated/Sparse Vegetation (N) – Live vegetation < 10% absolute cover, or lands not occupied by naturally occurring plant communities.

**Distribution Map:** Extent of the AGR map unit on the Boise National Forest.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 200 | <0.1% |
| Emmett RD | 86 | <0.1% |
| Idaho City RD | 49 | <0.1% |
| Lowman RD | 18 | <0.1% |
| Mountain Home RD | 8,251 | 1.1% |
| Boise NF | 8,604 | 0.3% |



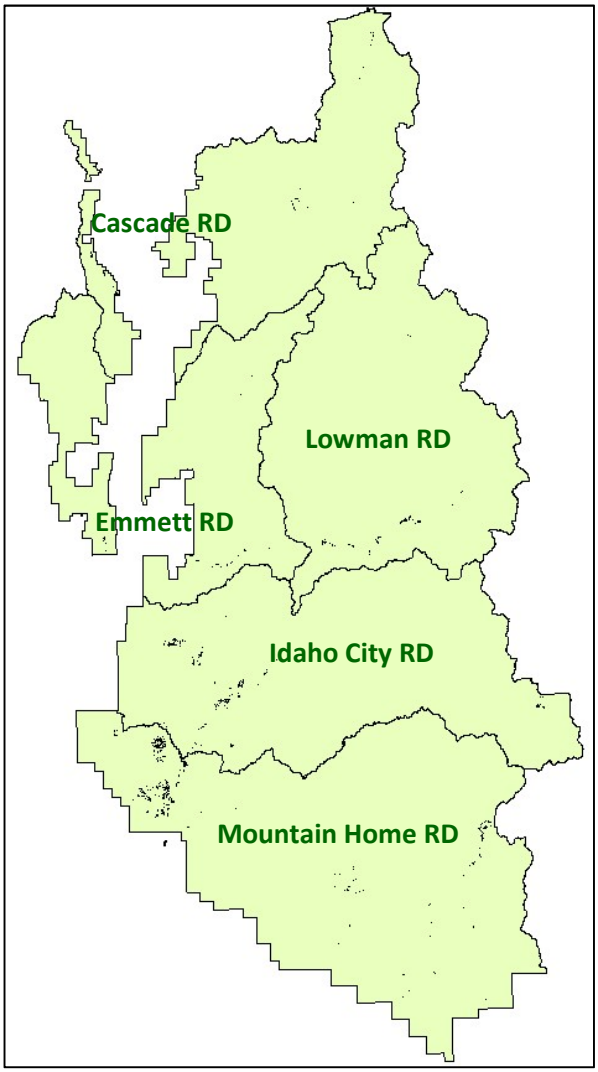

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 704 | 0.2% |
| Emmett RD | 411 | 0.1% |
| Idaho City RD | 1,937 | 0.3% |
| Lowman RD | 719 | 0.2% |
| Mountain Home RD | 3,911 | 0.5% |
| Boise NF | 7,682 | 0.3% |

**Map Unit Concept:** The Developed map unit is intended to delineate lands currently used for urban, residential, or administrative purposes.

**Vegetation Map Group:** Non-Vegetated/Sparse Vegetation (N) – Live vegetation < 10% absolute cover, or lands not occupied by naturally occurring plant communities.

**Distribution Map:** Extent of the DEV map unit on the Boise National Forest.



**Map Unit Concept:** The Water map unit is intended to delineate areas dominated by open water or a confined water course.

**Vegetation Map Group:** Non-Vegetated/Sparse Vegetation (N) – Live vegetation < 10% absolute cover, or lands not occupied by naturally occurring plant communities.

**Map Unit Extent:**

| Unit | Acres | Pct Area |
|---|---|---|
| Cascade RD | 2,204 | 0.5% |
| Emmett RD | 870 | 0.2% |
| Idaho City RD | 908 | 0.2% |
| Lowman RD | 4,052 | 0.9% |
| Mountain Home RD | 9,723 | 1.3% |
| Boise NF | 17,758 | 0.7% |

**Distribution Map:** Extent of the WA map unit on the Boise National Forest.